Volume 31 Issue 1

IMS Bulletin

January/February 2002

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Welcome to the new Bulletin

Bernard Silverman, incoming Editor, introduces the new format IMS Bulletin:

It is a great pleasure to introduce the first IMS Bulletin in its new format, and also my first number as Editor. I would like to pay tribute to the outgoing Editor, Dipak Dey, and Composition Editor, Cathy Brown, for their enormous efforts over the last four years. They have served an extra year of office while the search for their successors was taking place. I would also like to welcome Tati Howell, the new Assistant Editor, who will be involved in a wide range of the editorial work. She is very pleased to be working on the IMS Bulletin.

The IMS Council approved the new design last summer, and we hope that members will like it. Of course, we will continue to present all the information previously contained in the Bulletin, such as announcements of meetings, news of members, obituaries, job advertisements, and so on. In addition, there will be other reports and articles, which will, we hope, help members feel more involved in IMS activities in particular, and wider activities in probability and statistics more generally. In the current issue, Rosangela Loschi writes about the recent Latin American Probability and Statistics Congress held in Havana, Cuba, a meeting for which the IMS provided travel support for new researchers. Especially in view of the recent generous bequest by Radha Laha, the IMS intends to be able to help students and new researchers attend meetings in the future, and it is excellent to see how important this meeting was to those we were able to support. Another important form of community building is provided by research centers around the world. In the first of a series of articles about such centers, John Kingman writes about the Isaac Newton Institute in Cambridge, England.

Tati and I will do our best to solicit material for the Bulletin, but in order to be lively and interesting to IMS members, the Bulletin needs ideas and contributions from you. Perhaps you would like to write a short report on an IMS meeting or other interesting activity. You might even be interested in editing a regular column on some aspect of IMS's interests. Or you might wish to write a provocative letter or article inviting responses and debate! To do any of these things, or suggest anything else for the Bulletin that we haven't thought of, please contact us at **bulletin@imstat.org**

Tati Howell, Assistant Editor

IMS Bulletin

Volume 31, Issue 1
January/February 2002
ISSN 0146-3942

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News from IMS members

Bin Yu has been elected an IEEE Fellow with effect from the 1st January 2002, for "contributions to statistical methods in information theory".

Theo Cacoullos, Professor Emeritus of the University of Athens, Greece will be a visiting Professor for the spring semester at the University of New Mexico.

Michael P Cohen has been elected Treasurer of the Philosophical Society of Washington, DC. The Philosophical Society, founded in 1871, is the oldest scientific society in the Washington, DC area. The aims of the society are promotion of science, the advancement of learning, and the free exchange of views on scientific subjects. Dr Cohen is a senior mathematical statistician with the Office of Survey Programs of the US Bureau of Transportation Statistics. He holds a bachelor's degree from the University of California, San Diego and a masters and doctorate from UCLA, all in mathematics (specializing in mathematical statistics). Dr Cohen is also on the Board of Directors of the Washington Statistical Society and active in the DC chapter of the American Association for Public Opinion Research.

The American Statistical Association (ASA) is pleased to announce that Miron L Straf, Deputy Director of the Commission on Behavioral and Social Sciences and Education at the National Academy of Sciences, has assumed the office of President of the ASA. Dr Straf joined the ASA in 1974 and was named a Fellow in 1983. He has chaired the Section on Social Statistics and the Planning Committee of the ASA Board of Directors. He is also a Fellow of the Royal Statistical Society and an elected member of the International Statistical Institute. He is involved with the National Academy of Sciences, the International Association of Official Statistics, the Institute of Mathematical Statistics, and the Association of Public Policy Analysis and Management. His main professional interests are applications of statistics to public policy, national statistics and the federal statistical system, statistical evidence in the courts, environmental statistics, and statistical theory.

We announce the death of past IMS President Shanti S Gupta. There will be a memorial service in Prof Gupta's honor at Purdue's Dept of Statistics - details to follow on www.stat.purdue.edu. Mrs Gupta asks that donations go to Purdue Foundation, c/o the Shanti S. Gupta Fund, West Lafayette, IN 47907. We also announce the deaths of Harold Ruben and Maurice Bartlett. Obituaries will be published in a future issue.

2002 Special Lectures

This year's Wald Lectures at Banff will be given by Leo Breiman, from the University of California, Berkeley. Wing Wong, from Harvard University, will give the Neyman Lecture.

Wald Lecturer Leo Breiman

The Medallion Lectures will be given by: Andreas Buja, AT&T Labs; Maury Bramson, University of Minnesota; Steven Evans, University of California, Berkeley; Hans Künsch, ETH Zentrum; Robert Kass, Carnegie Mellon University; Jun Liu, Harvard University; Per Mykland, University of Chicago; and Robert Wolpert, Duke University.

Life membership now available

Beginning in 2002, Life membership is now available for IMS members. Life members receive both a lifetime IMS membership and a lifetime IMS Bulletin subscription. The 2002 rate for Life members is $780, which is 12 times the current IMS membership rate. This is a one-time fee and members will not be billed again. Life members can also opt to receive IMS journals for their lifetime as well. Life subscriptions are only available to Life members. Life members can also choose to subscribe to journals on a yearly basis rather than for life. Unlike the other dues categories, Life members can pay membership dues only and are not required to subscribe to a journal.

If you have any questions regarding Life membership or any other membership categories, contact IMS Executive Director, Elyse Gustafson erg@imstat.org

Renew online at www.imstat.org/membership/memapp/app.html

2002 Dues (in US$)

	Basic membership (with Bulletin)	The Annals of Statistics	The Annals of Probability	The Annals of Appl. Prob.	Statistical Science
Regular	65	30	25	20	15
Joint	70	30	25	20	15
Reduced Country/Retired	26	12	10	8	6
First Year Graduate	20	30	25	20	15
Second Year Graduate	40	30	25	20	15
Student	0	12	10	8	6
Life Member	780	360	300	240	180

IMS adds more countries to Reduced Dues list

Effective for 2002 dues, the IMS has expanded the list of countries eligible for reduced dues rates. The reduced dues countries are now those defined by the World Bank as "developing countries". The World Bank calculates per capita Gross National Income and then every economy is classified as low, middle or high income. It calls low and middle income economies "developing." There are now more than 150 developing countries listed.

This expanded definition has added ten countries to the former IMS list. These include Argentina, Saudi Arabia and South Korea. A complete list of eligible countries can be found in IMS Bulletin Volume 30, Issue 6, or at the web address given below.

If you have any questions or concerns regarding reduced dues, please contact IMS Executive Director, Elyse Gustafson.

https://www.faseb.org/html/imsreducedcountries.pdf

IMS Bulletin

Other IMS contacts

2001 IMS Fellows named

The following people have been named as IMS Fellows in 2001, and were admitted to Fellowship at the Annual Meeting last year. We warmly congratulate them.

Michael G. Akritas, Penn State University. For outstanding research in rank-based methods, nonparametric models, and censored data analysis; for consulting, disseminating statistical knowledge, mentoring students and service to the profession.

L. Mark Berliner, Ohio State University. For significant and innovative contributions to Bayesian robustness and analysis of chaotic and dynamical systems; for substantial research on development of statistical methodology in atmospheric science; for leadership in fostering cross-disciplinary research; and for editorial and other service to the profession.

Rainer Dahlhaus, University of Heidelberg. For significant contributions to time series analysis, particularly spectral analysis, long range dependence, bootstrap methods and modeling of non-stationary series; and for dedicated work as an associate editor and other services to the profession.

Jan de Leeuw, University of California, Los Angeles. For pioneering work in nonlinear multivariate analysis; for distinction as a teacher and mentor of statisticians; for service to the profession through editorial work and through innovative use of the web; and for leadership in forming the Department of Statistics at UCLA and fostering its growth.

Holger Dette, Ruhr-Universität Bochum. For exemplary research in optimal design of experiments and nonparametric regression; for superb editorial work; and for overall contributions to the statistical profession.

Robert C. Elston, Case Western Reserve University. For a lifetime of developing novel statistical methods for genetic research and their application to data; and for rigorously training both statisticians in genetics and geneticists in statistics.

Soumendra N. Lahiri, Iowa State University. For penetrating and pioneering contributions in bootstrap methodology for dependent data, in spatial statistics; for excellence in teaching; and for service to the profession.

Esa I. Nummelin, University of Helsinki. For his fundamental contributions to the theory of general Markov chains, renewal theory and the theory of large deviations.

Robin Pemantle, Ohio State University. For fundamental work in discrete probability, especially processes on trees and lattices.

H. Vincent Poor, Princeton University. For contributions to the theory of statistical signal processing and its applications in Electrical Engineering and related fields.

Javier Rojo, University of Texas, El Paso. For outstanding research contributions to nonparametric statistics and survival analysis; for outstanding work as a consultant and teacher; for supporting graduate and undergraduate students; and for service to the profession.

Qi-Man Shao, University of Oregon. For fundamental contributions to the self-normalized limit theory; and for important work on the sample-path properties of Gaussian processes, Monte Carlo methods in Bayesian computation, and limit theorems under dependence.

Eric V. Slud, University of Maryland. For profound contributions to survival analysis and statistical analysis of stochastic processes.

Sara A. van der Geer, University of Leiden. For seminal contributions to the theory of empirical processes and its applications to statistics; and for editorial service to the profession.

Aad W. van der Vaart, Free University. For great distinction in research in mathematical statistics and probability by independent and innovating publications, in particular in semiparametrics, asymptotic statistics and empirical processes; and for editorial service to the profession.

Suojin Wang, Texas A&M University. For fundamental contributions to the theory and practice of small sample inference via higher order methods, sample surveys, missing and mismeasured data, and the bootstrap; for excellence in teaching; and for service to the profession.

Nanny Wermuth, University of Mainz. For her role in developing the field of multivariate association, structures and patterns; and for her research and efforts in the furtherance of biometrics.

Yannis Yatracos, National University of Singapore. For fundamental results on abstract nonparametric minimum distance estimation, with applications to nonparametrics regression and density estimation; and for diverse original insights into small sample estimation.

Ofer Zeitouni, Technion. For fundamental contributions to the areas of large deviations and its applications, stochastic analysis and the theory of random walk in random environment.

Past IMS Bulletin Editors

Leo Katz (1972-74)
Dorian Feldman (1975-80)
William C Guenther (1981-86)
George P H Styan (1987-92)
Susan R Wilson (1992-97)
Dipak K Dey (1998-2001)

Survey reports on doctoral-granting Statistics and Biostatistics departments

Don Loftsgaarden, the Chair of the AMS-ASA-IMS-MAA Data Committee, writes: The AMS-ASA-IMS-MAA Data Committee directs an annual gathering of data from departments of mathematical sciences in the USA. This work was started by AMS in 1957 and has been done every year since then. Over time MAA, IMS, and ASA have become sponsors of this work. Currently the results are published in 3 reports each year in the February, August, and September issues of the *Notices of the American Mathematical Society*.

Among the departments surveyed are 55 departments of Statistics and 31 departments of Biostatistics or Biometrics that give doctoral degrees. These departments are called the Statistics Group. Results from these departments are reported separately from mathematics departments in the annual reports. A few results from the latest report are given here for the Statistics Group.

More new doctorates female

The Statistics Group made up 30% of the 284 doctoral granting mathematical sciences departments that were surveyed and they reported 237 new doctorates for the 2000-01 academic year. For these departments, 41% of the new doctorates were female compared to 25% female for the other departments of mathematical sciences granting doctorates. Of the 1008 new doctorates reported in the mathematical sciences, 289 had a dissertation in probability or statistics. For the Statistics Group, 46% were U.S. citizens, while 50% of the new doctorates in the other departments were U.S. citizens. Of the 195 new doctorates in the Statistics Group whose employment status was known, 5.1% were unemployed as of fall 2001.

2001 Annual Survey of the Mathematical Sciences
SPONSORED BY AMS ASA IMS MAA

A complete report on the 2000-01 new doctoral recipients as well as results of a salary survey of tenured and tenure-track faculty in all departments of mathematical sciences can be found in the 2001 Annual Survey of the Mathematical Sciences (First Report) in the February 2002 issue of the *Notices of the American Mathematical Society*. This report and other reports published by the Data Committee are available soon after they are published at the website below. All three 2000 reports, and some earlier reports are also found here.

www.ams.org/employment/surveyreports.html

Call for Abstracts: NSF-CBMS Research Conference

To stimulate interest and activity in mathematical research, the National Science Foundation intends to support approximately five NSF-CBMS Regional Research Conferences in 2003. A panel chosen by the Conference Board of the Mathematical Sciences will make the selections from among the submitted proposals. In the thirty-three year history of this NSF-CBMS Regional Research Conference Series, a total of 283 such conferences have been held, with seven more scheduled for 2002.

CBMS

Each five day conference features a distinguished lecturer who delivers ten lectures on a topic of important current research in one sharply focused area of the mathematical sciences. The lecturer subsequently prepares an expository monograph based upon these lectures, which is normally published as a part of a regional conference series. Depending upon the conference topic, the monograph is published by the American Mathematical Society, the Society for Industrial and Applied Mathematics, or jointly by the American Statistical Association and the Institute of Mathematical Statistics.

Support is provided for about 30 participants at each conference and the conference organizer invites both established researchers and interested newcomers, including postdoctoral fellows and graduate students, to attend.

Carey E. Priebe, IMS rep to CBMS, writes, "The proposal due date for the 2003 NSF-CBMS regional research conferences in the mathematical sciences is **April 8, 2002**. The call for proposals, and a listing of past conferences, can be found at the website below. We find, among other things, that prob/stat gets 0 of 7 in 2002, but got 2 of 7 in 2001, 1 of 4 in 2000, 2 of 5 in 1999, etc. Is 2002 an outlier, or the first observation in a trend? Let us endeavor to ensure that it is the former."

www.maa.org/cbms/nsf/nsf_start.htm

Announcements of meetings around the world

Interface '02, the 34th Symposium on the Interface of Computing Science and Statistics.
Ritz-Carlton Hotel, Montreal, Canada, April 17-20 2002

The theme of Interface '02 is **Geoscience and Remote Sensing**. Recent advances in satellite observing and other geoscience data collection and modeling methods have made very large, geophysical data sets routinely available to researchers in diverse areas of physical, life, and social sciences. These data, and the computing technology and infrastructure that support them, allow study of global scale processes at resolutions never before possible. Understanding complex relationships present and their evolution in space and time is a major challenge for statisticians, computer scientists and discipline scientists. Combining this information with social, political, health, and other ground-based environmental data may provide new knowledge with policy implications for life in the 21st century. Analysis techniques developed for Earth science applications will also aid in understanding the content of increasingly large planetary science data sets.

The Symposium features invited sessions on *statistics, computing, graphics, and data mining* generally and in relation Earth and planetary science. Other themes include *computer vision, data visualization, bioinformatics, computer security, and highlighted research from publications and government agencies sponsoring research relevant to the Interface*. This year there are also two sessions devoted to the best of recent KDD conferences, and short courses on *multiresolution visualization and pattern recognition*. The program committee seeks contributed presentations in all these areas and others of interest to the Interface community. Contributors may participate in either refereed or regular contributed sessions. Submission deadlines are **February 1** and **March 1 2002** respectively. For further information, registration, and abstract/paper submission details: www.galaxy.gmu.edu/interface/2002.html

Conference on Designs for Generalized Linear Models (GLMs).
Gaithersburg, MD, April 18-20, 2002

The conference will be held on the campus of the National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland, April 18-19, and at the Holiday Inn-Gaithersburg on April 20. The Statistical Engineering Division of NIST will act as a host. André I Khuri, U of Florida, and A Ivelisse Avilés, from NIST, are organizing the conference.

One goal of the conference is to provide a forum for interaction among people working on diverse areas of designs for GLMs. The second is to provide a stimulus to young researchers and graduate students in the design area. The list of speakers is available at www.stat.ufl.edu.

The conference will be limited to 75 participants. Online registration is available at www.nist.gov/conferences. Funding is expected from NSF for travel grants for graduate students and/or post-doctoral fellows/Junior faculty. Student applicants must be nominated by a professor and should send a letter of interest to André Khuri (ufakhuri@stat.ufl.edu) with a copy to Ivelisse Aviles (aviles@nist.gov). The letter should include educational and career goals and explain the interest in the conference with estimated travel expenses. Junior scientists need only send the letter of interest. The deadline for receipt of letters is **February 28, 2002**.

Statistical Challenges for Meta-Analysis of Medical and Health-Policy Data.
Berkeley, CA, May 9-11, 2002

A symposium at the Mathematical Sciences Research Institute, Berkeley, California. Organized by Joseph C. Cappelleri, Joseph Lau, Ingram Olkin, Diana Pettiti, Drummond Rennie, and Donna Stroup.

This symposium is designed to address *current issues in meta-analysis*. There will be reports on four topics: *meta-analysis for policy decisions, publication bias, heterogeneity models, and equating of medical outcome measures*. In addition, there will be other topics related to the methodology of meta-analysis or systematic reviews. Saturday afternoon will be devoted to a special session on reporting of medical data in the media. This will be a panel discussion with journalists and epidemiologists and statisticians.

Call for abstracts: Abstracts for oral presentations or poster sessions are invited on the above or related topics. The closing date for abstracts is **February 25, 2002**. Abstracts of one to two pages in length may be submitted electronically to meta@msri.org or mail to: Meta-Analysis Symposium, Mathematical Sciences Research Institute, 1000 Centennial Drive, #5070, Berkeley, CA 94720-5070.

The registration fee is $250 before March 15, 2002, and $400 thereafter. This fee may be adjusted or waived in special cases. To pay the fee, please send a check made out to *MSRI* to the above address. No credit cards accepted, sorry.

For more information, and to register online, please see zeta.msri.org/calendar/workshops/ WorkshopInfo/198/show_workshop

7th Valencia International Meeting on Bayesian Statistics
June 2-6 2002, Tenerife, Canary Islands

A residential conference, held in a seaside conference center in Playa de las Americas. World Conference on Bayesian Statistics, held every four years. Fully refereed, with selected proceedings published by Oxford University Press. The deadline for abstracts for contributed papers is **10 April 2002.** Futher information and registration forms at the conference web sites, listed below.

e valencia7@uv.es
w www.uv.es/valencia7 (USA mirror: www.stat.duke.edu/valencia7)
Organized by: Universidad de Valencia / ISBA

Symposium on Stochastics and Applications (SSA)
15 – 17 August 2002
An ICM-2002 Satellite Conference to be held in the Natl University of Singapore

Topics:

Financial mathematics, Gaussian random fields, Markov chain Monte Carlo, Probability approximations, Random matrices

Organizing Committee:

Louis H Y Chen, Natl University of Singapore (Chairperson), Zhidong Bai, Natl U of Singapore, Kwok-Pui Choi, Natl U of Singapore, Anthony Y C Kuk, Natl U of Singapore, Seng-Luan Lee, Natl U of Singapore, Wei-Liem Loh, Natl U of Singapore, Jiann-Hua Lou, Natl U of Singapore, Qi-Man Shao, U of Oregon, Yeneng Sun, Natl U of Singapore, Young K N Truong, Natl U of Singapore and U of North Carolina at Capel Hill

Invited Speakers:

(* denotes pending confirmation)
Zhidong Bai, Natl U of Singapore, Singapore
Rudolph Beran, U C Berkeley, USA
Andrew Barbour, U of Zurich, Switzerland
Timothy Brown, The U of Melbourne, Australia
Hans Föllmer, Humboldt-Universität zu Berlin, Germany
Friedrich Goetze, Bielefeld U, Germany
Peter Green, U of Bristol, UK
David Heath*, Carnegie Mellon U, USA
Wilfrid Kendall, U of Warwick, UK
Shigeo Kusuoka*, U of Tokyo, Japan
Michel Ledoux, L'Institut Natl des Sciences Appliquees de Rennes (INSA), France
Wenbo Li, U of Delaware, USA
Leonid Pastur, Université Paris 7 Denis Diderot, France
Qi-man Shao, U of Oregon, USA
Yeneng Sun, Natl U of Singapore, Singapore
Jia-an Yan, Chinese Academy of Sciences, Beijing, China

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2nd Conference In Actuarial Science And Finance
September 20-22, 2002, Samos, Greece

The Department of Statistics & Actuarial Science of the University of the Aegean is pleased to host the 2nd Conference in Actuarial Science and Finance, to be held in Samos, on September 20-22, 2002.

This event is jointly organized with the Katholieke Universiteit Leuven (Department of Applied Economics and Department of Mathematics) and the Universite catholique de Louvain (Institute of Statistics and Actuarial research group), Belgium.

The Conference allows the presentation of the latest works in the area of actuarial science and finance. It is open to all persons interested in actuarial science and finance, be they from universities, insurance companies, banks, consulting firms or regulatory authorities. The conference aims to facilitate the contact and the communication between the practicians and the researchers; a special session will be devoted to different aspects of actuarial practice.

The main topics include
· Life, pension and health insurance
· Collective Risk Models, Dynamic Solvency Testing
· Claims Distributions and Statistics
· Nonlife insurance
· Extreme Value Theory and Applications
· Financial Risk Management

A number of sessions will explore the different aspects of these areas.
There will 3 pre-conference short courses from September 16-19, 2002:
· Extremes, with applications in insurance and finance, by Professor J. Teugels
· Modelling of dependence, by Professor J. Dhaene
· Building projected lifetables to manage the longevity risk, by Professor M. Denuit
Postgraduate students and young reseachers are specially welcome.
For further information, please refer to www.stat.ucl.ac.be/Samos2002/

IMS Sponsored meeting

IMS/WNAR REGIONAL MEETING

June 23-26, 2002 Los Angeles, California

The IMS Western Regional Meeting and the WNAR Summer Meeting will be held at the University of California, Los Angeles, California, June 23--26, 2002. A workshop on molecular phylogeny will be held at the conference on June 23, 2002, and a Young Researchers' Luncheon will provide students and young investigators the opportunity to meet senior researchers.

IMS Program Chair: Michael Kosorok (kosorok@biostat.wisc.edu), Statistics and Biostatistics & Medical Informatics, University of Wisconsin, Madison, WI 53792, phone 608.263.6797, fax 608.265.5579

WNAR Program Chair: Weng Kee Wong (wkwong@sunlab.ph.ucla.edu), Biostatistics, University of California, Los Angeles, CA 90095-1772, phone 310.206.9622, fax 310.267.2113

IMS Local Arrangements Chair: Gang Li (gangli@sunlab.ph.ucla.edu), Biostatistics, University of California, Los Angeles, CA 90095-1772, phone 310.206.5865, fax 310.267.2113

WNAR Local Arrangements Chair: John Boscardin (johnb@sunlab.ph.ucle.edu), Biostatistics, University of California, Los Angeles, CA 90095-1772, phone 310.825.6402, fax 310.267.2113

The IMS contributed paper deadline is March 15, 2002. Speakers and titles should be sent to kosorok@biostat.wisc.edu and abstracts should be submitted through the abstract templates available at the web site: www.ph.ucla.edu/biostat/wnarims/welframe.ims.

Westwood Village in Los Angeles, California, home to the UCLA campus, is an ideal location for a summer conference. Within short walking distance of the conference headquarters are shops and restaurants for every budget and occasion, old-fashioned single screen movie theaters, museums, performing arts centers, botanical and sculpture gardens, and athletic and recreational facilities of every imaginable variety. The stunning beaches of Santa Monica and Malibu, the famous shopping districts of Rodeo Drive and Melrose Avenue, and the world-renowned Getty Museum are all less than 15 minutes by car.

The weather should be perfect. In late June, the average high is 73º Fahrenheit, and the average low is 60º F, with no precipitation. Information (updated regularly) is also available at the web site:

www.ph.ucla.edu/biostat/wnarims

IMS Invited Paper Sessions and Organizers:

High Dimensional Data Analysis.
Organizer: Ker-Chau Li, U of California-Los Angeles.
Speakers: Susan Holmes, Stanford U - "Analysing Microarray Data as Contingency Tables."
Efstathia Bura, George Washington U - "Class Prediction in Microaaray Data Using SIR."
Kerby Shedden, U of Michigan - "Dimension Reduction for Ensembles of Time Series and Spatial Time Series."

Graphical Models and Related Approaches to Causal Inference.
Organizer: Thomas Richardson, U of Washington.
Speakers: Judea Pearl, U of California-Los Angeles - "The Mathematics of Causation."
Peter Spirtes, Carnegie Mellon U - "What Can We Learn From Sensitivity Analyses?"
Sander Greenland, U of California-Los Angeles - "We Can't Learn Anything From a Sensitivity Analysis Without a Prior for the Sensitivity Parameters."

Data Compression and Noise Reduction.
Organizer: Bin Yu, U of California-Berkeley.
Speakers: Rebecka Jorsten, Rutgers U - "Compression of Microarray Images and Its Statistical Implications."
Amy Braverman, NASA Jet Propulsion Laboratory - "Analysis of Large Geophysical Data Sets Via Data Compression."
Jose Pinheiro, Biostatistics Novartis Pharmaceuticals - "Data Reduction Using Signatures."

Mixture Models and Statistical Genetics: joint WNAR session.
Organizer: Jason P. Fine, U of Wisconsin-Madison.
Speakers: Fei Zou, U of North Carolina-Chapel Hill - "On Empirical Likelihood for a Semiparametric Mixture Model, with Application to Quantitative Trait Loci."
Peter Hoff, U of Washington - "Identifying Carriers of a Genetic Modifier Using Stochastic Ordering Constraints."
Jing Qin, Sloan Memorial Kettering Cancer Center - "Using a Mixture Model for Finding Informative Genes in Microarray Studies."

Recent Advances in Nonparametric Statistics.
Organizer: Wolfgang Polonik, U of California-Davis.
Speakers: Hans-Georg Müller , U of California-Davis - "Models for Functional Regression."
Guenther Walther, Stanford U - "Oscillation Analysis for the Mixture Complexity."
Wei Wang, Harvard U - "Proportional Hazards Regression Model with Unknown Link Function and Application to Longitudinal Time-to-event Data."
Qiwei Yao, London School of Economics - "Semiparametric Estimation for Spatial Processes."

Recent Advances in Semiparametric Models.
Organizer: Mark van der Laan, U of California-Berkeley.
Speakers: James Robins, Harvard U - "Double Robustness in Semiparametric Models."

October 31 - November 3, 2002
EWSM - Model Building and Evaluation
Schloss Hoehenried, Bernried, near Munich Germany

The Euroworkshop on Statistical Modelling (EWSM) is a project which is funded by the European Commission (CORDIS) in the programme High Level Scientific Conferences. The project is also connected to the International Workshop on Statistical Modelling. Topic areas include: *Traditional Model Diagnostic Tools*, *Graphical Model Diagnostics*, *Model validation using smoothing techniques*, *Bayesian Models and their validation* as well as *Bootstrapping and its role in model evaluation*.

The workshop is designed to have lectures from the Keynote Speakers (A. Davison, J. Hart, S. Weisberg) and further contributed presentations. The number of participants is limited to 30, where young researchers are particularly encouraged to participate actively by presenting their work. The major focus is on open discussions and questions and each session is accompanied by a separate discussion round.

Contact: Goeran Kauermann, Department of Statistics, University of Glasgow, Mathematics Building, University Gardens, Glasgow G12 8QW **e** goeran@stats.gla.ac.uk **w** www.stat.uni-muenchen.de/euroworkshop/2002.html

Daniel Scharfstein, Johns Hopkins U - "Estimation of the Failure Time Distribution in Studies with Non-informative and Informative Competing Causes of Censoring."
M. Alan Brookhart, U of California-Berkeley - "Minimizing the MSE for the Parameter of Interest Over Nuisance Parameter Models Using Cross Validation."

WNAR Invited Paper Sessions and Organizers:

Environmental and Ecological Statistics.
Organizer: Paul Switzer, Stanford U.
Speakers: Dave Higdon, Los Alamos National Laboratory and Duke U - "Building Tractable, Non-Stationary Space-Time Models for Environmental Monitoring and Network Design."
Adrian E. Raftery and Tilmann Gneiting, U of Washington - "Assessing Uncertainty in Mesoscale Numerical Weather Prediction Models via Bayesian Melding and Bayesian Model Averaging."
Bryan F. J. Manly, Western EcoSystem Technology Incorporation, Cheyenne, Wyoming - "Two-Phase Stratified Random Surveys on Multiple Populations at Multiple Locations."

Advances in Survival Analysis.
Organizer: Gang Li, U of California-Los Angeles.
Speakers: Dorota Dabrowska, U of California-Los Angeles - "Estimation in Bivariate Transformation Models for Failure Time Data."
Ian McKeague, Florida State U - "Comparisons of Treatments and Competing Risks in Clinical Trials."
Mark van der Laan, U of California at Berkeley - "Estimation of Treatment Specific Survival Functions in Longitudinal Studies."
Gang Li and Chaofeng Liu (speaker), U of California-Los Angeles - "Partly Linear Additive Risk Models for Survival Data."

Recent Advances in Clinical Trial Design: joint IMS session.
Organizer: Peter Thall, Anderson Cancer Center.
Speakers: B. Bebiyou Bekele and Peter Thall, Anderson Cancer Center - "Bayesian Dose-Finding Based on Multiple Toxicities in Phase I Clinical Trials."
Richard Cook and Wei Wei, U of Waterloo - "On the Use of Baseline Counts in Trial Design with Mixed Poisson Processes."
Peter Thall, Lurdes Inoue and Donald Berry, Andersen Cancer Center - "Seamlessly Expanding a Randomized Phase II Trial to Phase III."

Bayesian Modeling of Complex Longitudinal Data Using MCMC.
Organizer: Mary Kathryn Cowles, U of Iowa.
Speakers: Jennifer A. Hoeting and Devin S. Johnson, Colorado State U - "Autoregressive Models for Capture Recapture Data."
M. J. Daniels and M. Pourahmadi, Iowa State U - "Modelling Heterogeneous and Parsimonious Covariance Structures in Longitudinal Data."
Mary Kathryn Cowles, U of Iowa - "Bayesian Estimation of Measures of Surrogacy of Longitudinal Marker Data for Failure-Time Endpoints."

Recent Developments in Multiple Imputation.
Organizer: Bonnie Ghosh, Rand Corporation.
Speakers: Tom Belin, U of California-Los Angeles - "Multiple Imputation for Highly Multivariate Datasets."
Bonnie Ghosh Dastidar, RAND Corporation - "Multiple Edit/Multiple Imputation."
Joe Schafer, Penn State U - "Multiple Imputation for Longitudinal Datasets---the PAN software."

WNAR SHORT COURSE:

Kenneth Lange, U of California-Los Angeles, Eric Schadt, Rosetta Informatics, Janet Sinsheimer, Marc Suchard and Robert Weiss, U of California-Los Angeles - "Molecular Phylogeny: Statistical Methods for Reconstructing and Interpreting Evolutionary Histories"

Biological databases are now bulging with genomic data. As ever more species are sequenced, the need for understanding and interpreting these data grows. Evolution is the key to making sense of the confusion. Phylogeny provides a language for specifying scientific hypotheses about genomes and the conserved genes across genomes. Classically, phylogeny has focused on the reconstruction of evolutionary trees connecting related taxa. Although this role is hardly played out, attention is shifting to more subtle questions of evolution and to the identification of gene families, regulatory regions, and conserved domains within genes. Progress will only come with the massive application of computers and statistical models. Opportunity is knocking on the doors of enterprising statisticians. In this course we will: a) explain the biology underlying the molecular data, b) discuss basic and advanced mathematical models for the data, c) fit the models using frequentist and Bayesian methods, d) provide an overview of the databases and existing analysis software, e) illustrate how phylogenetic inference sheds light on specific scientific questions, f) present a number of examples from our research, and g) mention open problems and the grand challenges of the field.

Young Researchers' Luncheon
Sponsors include GlaxoSmithKline, Merck and Pfizer
The Young Researchers' Luncheon is a gathering of young researchers and senior ones in an informal setting. Young researchers are those who completed their doctoral degree within two years of the WNAR/IMS meeting, and students who are near completion of their doctoral degree. The purpose of the luncheon is to stimulate interaction and networking amongst young investigators and senior researchers and to make young researchers aware of recruitment opportunities.

IMS Sponsored meeting

IMS/ENAR Meeting, March 15-21, 2002

http://sun.cwru.edu/ims

Program Chair: Jiayang Sun, jiayang@sun.stat.cwru.edu**, Case Western Reserve University; Local Arrangements Chair: Colin Wu,** colin@mts.jhu.edu**; Contributed Papers Chair: Nidhan Choudhuri,** nidhan@nidhan. cwru.edu
Type: Sponsored/Numbered (275)
Feb 10 - cutoff date for early bird registration, Feb 22 - cutoff for hotel registration

The IMS Eastern Regional meeting will be held jointly with the spring meeting of the International Biometric Society, Eastern North AmericanRegion (ENAR) and sections of American Statistical Association (ASA) March 15-21, 2002, in Washington DC area at Hyatt Crystal City, Arlington, Virginia.

IMS Abstracts: Invited Talks

IMS Special Invited Paper Session

Chair: Nozer D. Singpurwalla, George Washington U

1. Bayesian Curve-Fitting and Neuron Firing Patterns

Speaker: Rob Kass, Carnegie Mellon U

Abstract: One of the most important techniques in learning about the functioning of the brain has involved examining neuronal activity in laboratory animals under varying experimental conditions. Neural information is represented and communicated through series of action potentials, or spike trains, and a fundamental question in neuroscience is precisely how this is accomplished, that is, what physiological significance should be attached to a particular neuron firing pattern. To begin our statistical work in this area my colleagues and I in Statistics and at the joint Carnegie Mellon and U of Pittsburgh Center for the Neural Basis of Cognition, have used spline-based methods to fit neuronal data with inhomogeneous Poisson processes and a non-Poisson generalization of these. In my talk I will describe the neurophysiological setting and then use it as background to discuss a general approach to curve fitting with free-knot splines and reversible-jump MCMC, which may be applied in the point process setting. With this analytical foundation in place I will outline the progress we've made and the substantive problems we hope to address in the next few years.

Views of Washington DC

2. L'evy Random Fields and Statistical Inverse Problems

Speaker: Robert L Wolpert, Duke U, Discussants: Tilmann Gneiting & Julian Besag, U of Washington

Session 1: Clustering and Mixture Modeling Applications

Organizer and Chair: David W. Scott, Rice U

1. Nonparametric Poisson Mixture Models for Genomic EST Data

Speaker: Bruce Lindsay, Penn State U

Co-authors: Changxuan Mao, Penn State U, Jiping Wang Penn State U

Abstract: Expressed sequence tag (EST) data in genomics consists of the counts of the number of expressed genes in sample from a cDNA library consisting of thousands of EST fragments. In some contexts the total number of genes in the library is unknown and is being investigated; in other contexts the relative expression levels of genes across several libraries is of interest. We here model the EST sampling as Poisson, with the counts of each gene being Poisson with an abundance parameter depending on the gene. If the abundance parameters are drawn from an unknown distribution, we have a Poisson mixture model for the observed counts. We will discuss estimation of important biological features with this model. In addition, we will discuss the incorporation of possible measurement error in the identification of the genes.

2. Class Cover Catch Digraphs for Gene Expression Analysis

Speaker: Carey Priebe, The Johns Hopkins U

Abstract: We present a semiparametric mixture methodology for investigation of high-dimensional pattern recognition problems which involves modeling the class-conditional discriminant regions via collections of balls. The number, location, and size of the balls are determined adaptively through consideration of dominating sets for class cover catch digraphs. We apply the methodology to the analysis of gene expression monitoring by DNA microarrays.

3. Mixture Analysis for Flow Cytometry

Speaker: Guenther Walther, Stanford U, Discussant: David Scott, Rice U

Abstract: Flow cytometry uses laser-induced fluorescence to count and sort cells. With flow cytometers now finding their way into big hospitals, there is a need to automate and standardize the data analysis. One challenging problem is the analysis of high-dimensional mixtures. The talk will give an overview of the problems involved, and delineate approaches that may be useful.

Session 2: Recent Advances in Dimension Reduction for Regression

Organizer: Dennis Cook, U of Minnesota

Chair: Efstathia Bura, George Washington U

1. Recent Advances in Dimension Reduction for Regression

Speaker: Dennis Cook, U of Minnesota

Abstract: In dimension reduction for regression we seek to construct a parsimonious summary by reducing the dimension of the predictor vector without loss of information on the conditional distribution of the response given the predictors, and without requiring a pre-specified parametric model. We called this sufficient dimension reduction, borrowing terminology from classical statistics. We will review sufficient dimension reduction in regression, focusing on progress in the past 10 years and directions for the future. This presentation is intended in part to establish background for the subsequent talks by F. Chiaromonte and B. Li in the same session.

2. Dimension Reduction for conditional mean in regression

Speaker: Bing Li, Penn State U

Co-author: R. D. Cook, U of Minnesota

Abstract: In many situations regression analysis is mostly concerned with inferring about the conditional mean of the response given the predictor, and less concerned with the other aspects of the conditional distribution. In this paper we develop the dimension reduction methods that incorporate this consideration. We introduce the notion of the Central Mean Subspace (CMS), a natural inferential object for dimension reduction when the mean function alone is of interest. We will study the properties of the CMS, and develop various methods to estimate it. These methods include a new class of estimators which require fewer conditions than principle Hession dimensions (pHd), and which displays a clear advantage when one of the conditions for pHd is violated. CMS also reveals a transparent distinction among the existing methods for dimension reduction: Ordinary Least Square, principle Hessian dimension, Sliced Inverse Regression, and Sliced Averaged Variance Estimator. The new methods will be applied to the analyze a data set involving recumbent cows. We will also discuss the estimation and inference issues surrounding these methods.

3. Extending Dimension Reduction to Regressions with Categorical Predictors

Speaker: Francesca Chiaromonte, Penn State U

Co-author: R. Dennis Cook Statistics Department, U of Minnesota, David Louis, Massachusetts General Hospital

Abstract: As high-dimensional data sets become increasingly common, sufficient dimension reduction provides a theoretical foundation and effective

methodology for the low-dimensional management of regressions involving a large number of quantitative predictors. In many applications, though, quantitative predictors, to be reduced through linear combinations, come together with qualitative predictors. In this talk, we lay down the theoretical basis of partial dimension reduction, in which the sufficient reduction of a set of quantitative predictor is filtered through a subpopulation structure generated by categorical variables. We also describe how one of the most popular dimension reduction methods, sliced inverse regression (SIR), can be adapted to partial reduction under appropriate assumptions. Finally, we present some applications.

Session 3: Semiparametric Models in Survival Analysis

Organizer and Chair: Zhiliang Ying, Columbia U

1. A Generalized Self-consistency Approach to Semiparametric Survival Models

Speaker: Alex Tsodikov, U of Utah

Abstract: Potentially unlimited dimension has been the most critical deterrent to the use of maximum likelihood estimation (MLE). In semiparametric regression models. Methods based on the partial likelihood are specific to the proportional hazards model, and do not extend to other models. Development of general, reliable and efficient algorithms for semiparametric MLE has been a long-standing problem. Such algorithms will be the subject of this presentation. The algorithms are based on the representation of a survival, hazard and likelihood functions using a so-called quasi-expectation operator qE. The quasi-EM algorithm is developed to maximize the likelihood. The theory generalizes the concept of proportional hazards frailty. It is shown that the quasi-EM algorithm converges monotonically to the ML estimator under mild conditions. Examples of particular models and real data analyses are sketched.

2. Comparing Non-nested Cox Models

Speaker: Jason Fine, U of Wisconsin

Abstract: We study the limiting distribution of the partial likelihood ratio under general conditions. The multiplicative hazards models being fitted may be non-nested and mis-specified. The true model is not assumed to contain either model under consideration. The null hypothesis is that the models are equidistant in Kullback-Leibler metric applied to the rank likelihood. The statistic is consistent for the model which is closer to the truth. Its distribution depends on the unknown data generating mechanism. A sequential testing procedure is proposed for non-nested comparisons, which is valid regardless of the true model. This involves a novel statistic for the equality of the fitted models which is separate from the partial likelihood. The methodology has important applications in model assessment. A real example demonstrates its utility in selecting the functional forms of covariates and relative risks.

3. Semiparametric Analysis of Transformation Models

Speaker: Kani Chen, Hong Kong U of Science and Technology

Co-author: Zhezhen Jin, Columbia U, Zhiliang Ying, Columbia U

Abstract: We propose a unified estimation procedure for the analysis of censored data using linear transformation models, which include the proportional hazards model and the proportional odds model as special cases. This procedure is easy to implement numerically and its validity does not rely on the assumption of independence between the covariates and the censoring variable. The estimate is the same as the Cox partial likelihood estimate in the case of the proportional hazards model. Moreover, the asymptotic variance of the proposed estimate has a closed-form and its variance estimate is easily obtained by plug-in rules. The method is illustrated by simulation examples and is applied to analyze the Veterans Administration lung cancer data.

Session 4: Some Recent Developments and Applications of Random Partition Distributions

Organizer and Chair: Hemant Ishwaran, Cleveland Clinic Foundation

1. Poisson-Dirichlet approximations for random permutations: a tale of three couplings

Speaker: Simon Tavare, U of Southern California

Co-author: Richard Arratia, U of Southern California, Andrew D. Barbour, U of Zuerich

Abstract: Vershik and Shmidt (1977) and Kingman (1977) proved that the rescaled process of largest cycle sizes for a random permutation converges in distribution to the Poisson-Dirichlet law with parameter 1. Here we give a bound on the expected l_1 distance for such approximations, showing that both processes can be constructed together so that the expected l_1 distance is $(\log n / n)(c + o(1))$ There is a lower bound, uniform over all conceivable couplings, of the form $(\log n / n)(1/4 + o(1))$. We compare three different couplings of permutations with its continuous limit, the Poisson-Dirichlet, and show that one of them achieves the lower bound with $c = 1/4$

2. Continuous time processes, Bayesian models, and partition structures

Speaker: Fred M. Hoppe, McMaster U

3. Random partition structures and Bayesian models

Speaker: Lancelot F. James, Johns Hopkins U

Abstract: This talk discusses the role of random partition structures in the posterior analysis of random probability measures and more general random measures which may arise within the context of Bayesian semi-parametric models and spatial modeling. It will be shown how partition based methods play a role in elucidating the structural features of various models and also suggest methods for computations. As an example, it will be shown how these ideas apply to a class of species sampling random probability measures which includes the Dirichlet process and a two-parameter extension discussed by Jim Pitman (1996).

Session 5: Applications of Function Estimation

Organizer and Chair: Catherine Loader, Bell Lab, Lucent

1. Covariate Centering and Scaling in Varying-Coefficient Regression

Speaker: Colin Wu, Johns Hopkins U

Co-author: Kai F. Yu, National Institute of Child Health and Human Development, Bethesda, MD., Vivian W. Yuan Allied Technologies Group, Inc., Bethesda, MD

Abstract: An important objective in longitudinal analysis is to evaluate the effects of covariates, either time-invariant or time-dependent, on the time-dependent response variables. Because of the special modeling structures, the time-varying coefficient models enjoy the advantage of being both flexible and mathematically tractable. In this paper, we propose a class of time-varying coefficient models with centered or standardized (both centered and scaled) covariates, discuss the practical benefits of covariate transformation, and develop a comprehensive set of nonparametric estimation and confidence procedures based on these models. We demonstrate the practical properties of our methods through an epidemiological fetal growth study and a simulation study. Our results suggest that covariate centering or standardization can lead to statistically superior estimators or inferences and more desirable biological interpretations.

2. Self-modeling with flexible, random time transformations

Speaker: Lyndia C. Brumback

Co-author: Mary J Lindstrom, U of Wisconsin-Madison

Abstract: Methods for modeling sets of complex curves where the curves must be aligned in time (or in another continuous predictor) fall into the general class of functional data analysis and include self-modeling regression and time warping procedures. Self-modeling regression (SEMOR) or shape invariant models (SIM) assumes the curves have a common shape, modeled non-parametrically, and curve-specific differences in amplitude and timing, traditionally modeled by linear transformations. When curves contain multiple features that need to be aligned in time, SEMOR may be inadequate since a linear time transformation generally cannot align more than one feature. Time warping procedures focus on timing variability and find flexible time warps that align multiple data features. We draw on these methods and develop a SIM that models the time transformations as random, flexible, monotone functions. We illustrate the potential usefulness of our approach by applying the model to speech movement data.

3. Variable Selection for Cox's Proportional Hazards Model and Frailty Model

Speaker: Jianqing Fan, U of North Carolina, Chapel Hill

Co-author: Run-Ze Li, Pennsylvania State U

Abstract: A class of variable selection procedures for parametric models via nonconcave penalized likelihood were proposed in Fan and Li (2001a). It has been shown there that the resulting procedures perform as well as if the subset of significant variables were known in advance. Such a property is called an oracle property. The procedures were illustrated in the context of linear regression, robust linear regression and generalized linear models. In this paper, the nonconcave penalized likelihood approach is extended further to the Cox proportional hazards model and the Cox proportional hazards frailty model, two commonly used semiparametric models in survival analysis. As a result, new variable selection procedures for these models are proposed. It is demonstrated how the rates of convergence depend on the regularization parameter in the penalty function. Further, with a proper choice of the regularization parameter and the penalty function, the proposed estimators possess an oracle property. Standard error formulae are derived and their accuracies are empirically tested. Simulation studies show that the proposed proce-

dures are more stable in prediction and more effective in computation than the best subset variable selection, and they reduce model complexity as effective as the best subset variable selection. Compared with the LASSO (a penalized likelihood method with the L_1-penalty), proposed by Tibshirani (1996, 1997), the new approaches have better theoretic properties and finite sample performance.

Session 6: Monte Carlo In Action

Organizer: Jun Liu, Harvard U
Chair: Scott Schmidler, Duke U

1. Advance Sequential Monte Carlo and their Applications in Nonlinear/Non-Gaussian Dynamic Systems

Speaker: Rong Chen, The U of Illinois at Chicago
Abstract: Stochastic systems are routinely used in science, engineering and economics. Many of these systems have a natural dynamic structure; others can often be built up dynamically. Sequential Monte Carlo (SMC) can be loosely defined as a family of methodologies that use Monte Carlo simulation to solve on-line estimation and prediction problems in dynamic systems. By recursively generating Monte Carlo samples of the state variables or some other latent variables, these methods can easily adapt to the dynamics of the underlying stochastic systems. Although the basic principle behind SMC dates back to the "growth Monte Carlo" method (Rosenbluth & Rosenbluth, 1955) known in molecular physics in the 50's, a complete theoretical framework for the SMC appeared recently (Liu & Chen, 1998). In this talk we first briefly review the basic framework of SMC. Then we discuss several advance SMC algorithms that provide significant efficiency improvement. Several applications will be presented.

2. Bayesian inference of phylogeny using Markov chain Monte Carlo

Speaker: John Huelsenbeck, U of Rochester, NY
Abstract: Evolutionary biology is founded on the concept that all organisms share a common ancestry. Phylogenies are representations of this evolutionary history. I describe a Bayesian approach to estimating phylogenies. Metropolis-coupled Markov chain Monte Carlo is used to approximate the posterior probabilities of trees. The method has a number of advantages to the evolutionary biologist, including fast analysis of data under complex evolutionary models and the ability to accommodate uncertainty in phylogeny when addressing questions related to phylogeny.

3. The haplotyping problem—a Bayesian method

Speaker: Matthew Stephens, U of Washington
Co-author: Nicholas Smith, U of Oxford, Peter Donnelly, U of Oxford
Abstract: Current routine experimental methods for determining the genetic types of individuals in a population ("genotyping") typically do not provide haplotype information — i.e. information on which of the two alleles at each locus was inherited from the individual's mother, and which was inherited from the father. Nevertheless, haplotype information seems likely to play an important role in many future analyses of fine-scale molecular genetics data, particularly in the hunt for genes causing common diseases. Haplotypes can be obtained, at considerable cost, experimentally. Alternatively, a statistical method can be used. We will introduce this problem for a statistical audience, describe two existing statistical approaches, and propose a new Bayesian method, which improves on current algorithms by incorporating a prior based on population genetics theory.

Session 7: New Software.

Organizer: Heping Zhang, Yale U
Chair: Hongtu Zhu, Yale U

1. Computation and Visualization of Simultaneous Confidence Bands

Speaker: Catherine Loader, Bell Lab, Lucent Technologies
Abstract: Computational methods for simultaneous confidence bands area are recently developed part of the Locfit software for regression and smoothing. The mathematical technique used is based on Weyl's volume-of-tubes formula with boundary corrections. This method provides a finite sample large deviation approximation in the case of an underlying Gaussian process, and provides the basis for an accurate asymptotic approximation for more general processes such as those arising from a generalized linear model. The second component of the software is effective visualization. In more than one dimension, display of simultaneous confidence bands requires careful choice of graphics, and a comparison is presented between trellis plots and multidimensional surface plots.

2. Interactive Projection Pursuit and Applications

Speaker: Jiayang Sun, Case Western Reserve U
Abstract: Modern statistics is closely related to statistical software research. Interactive Projection Pursuit (IPP) is a recently developed software that combines the best features of automatic and manual (graphical) projection pursuit. It allows for quick searches, human interaction, and interfaces with other statistical functions, such as contour, dendrogram and density estimation. The software can be installed as a library in S-Plus, for conducting both one and two dimensional PP. It is the first software that provides significance values for the so-called interesting projections. It can be used for finding bumps, modes, clusters and abnormal structures in high dimensional data. This talk will illustrate ideas and applications via a live demo. If time permits, some comparisons with projection pursuit functions in Xgobi will be provided.

3. Logic Regression

Speaker: Charles Kooperberg, Fred Hutchinson Cancer Research Center, Seattle WA.
Co-author: Ingo Ruczinski, Johns Hopkins U
Abstract: Logic Regression is an adaptive regression methodology that attempts to construct predictors as Boolean combinations of binary covariates. In numerous situations when most predictors are binary, the interactions between predictors may be what causes a difference in response. This issue arises, for example, in the analysis of single nucleotide polymorphism (SNP) data or in some data mining problems. In the proposed methodology we create new predictors from binary predictors, generating rules of the form "X1, X2, X3 and X4 are true", or "X5 or X6 but not X7 are true". These new predictors and their coefficients in a regression model are estimated simultaneously using a simulated annealing algorithm. The publicly available software is organized such that the Logic Regression methodology can be applied to any (regression) model, as long as a score function can be defined. Such score functions were implemented for linear regression, logistic regression and Cox models, but a user can easily supply her/his own function. We will describe the methodology and the software and give some examples.

Session 8: Statistics in Brain Mapping

Organizer: Keith Worsley, McGill U
Chair: Nidhan Choudhuri, Case Western Reserve U

1. Statistical morphometry in neuroanatomy

Speaker: Moo K. Chung, McGill U
Co-author: W.M. Keck, U of Wisconsin-Madison, Keith J. Worsley, Montreal Neurological Institute, McGill U, Tomas Paus, Montreal Neurological Institute, McGill U, Steve Robbins, Montreal Neurological Institute, McGill U, Jonathan Taylor, Stanford U, Jay N. Giedd, National Institute of Mental Health, NIH, Judith L. Rapoport, National Institute of Mental Health, NIH, Alan C. Evans, National Institute of Mental Health, NIH
Abstract:
The scientific aim of computational neuroanatomy using magnetic resonance imaging (MRI) is to quantify between and within subject morphological variations. A unified statistical framework for analyzing the pattern of brain deformation will be presented. Based on differential geometry, the deformation of the brain is modeled and key morphological metrics such as length, area, volume and curvatures can be estimated. To increase the signal-to-noise ratio, Gaussian kernel smoothing is applied to 3D MRIs. For 2D curved cortical surfaces, which are segmented from MRIs as triangular meshes, diffusion smoothing is applied. Afterwards statistical inference is based on the excursion probability of t-random field defined on manifolds.
This method has been applied in localizing the regions of brain tissue growth and loss in a group of 28 normal children and adolescents. It is shown that children's brains change dramatically in localized areas even after age 12.

2. Bayesian analysis of fMRI time series

Speaker: Chris Genovese, Carnegie Mellon U

3. Estimating the Variability of BOLD-FMRI Response Delays

Speaker: Ziad S. Saad, NIMH
Co-author: Edgar A. DeYoe, Medical College of Wisconsin, Milwaukee WI., Robert W. Cox, National Institute of Mental Health, Bethesda MD., Kristina M. Ropella, Marquette U, Milwaukee WI
Abstract: Functional Magnetic Resonance Imaging (FMRI) is routinely used to image human brain function. Blood Oxygenation Dependent (BOLD) FMRI detects localized changes in blood volume and oxygenation that follow neuronal stimulation with a few seconds delay. These response delays vary across and within voxels (3D pixels) and reflect variance in the BOLD response to stimulation and noise. We developed a model to identify and quantify the components contributing to variability in delay measurements. Within-voxel changes in delay over time were accounted for by the effects of empirically measured FMRI noise with virtually no measurable variability associated with the stimulus-induced response. Across voxels, as much as 47% of the delay variance was also due to FMRI noise, with the remaining variance reflecting fixed delay differences among brain sites. White noise models significantly underestimated the FMRI noise effects. In addition, we compared the delay distribution between voxels mapped to blood vessels with

those mapped to parenchymal tissue. We found that mean delays for blood vessels were 0.7 to 2.4 seconds longer than for parenchyma; however, both produced responses with long delays.

Contributed Talks

Session 1: Statistics in Medical Sciences and Methodology

Chair: Jun Zhu, U of Wisconsin

1. The Use of Frailty Hazard Models for Unrecognized Heterogeneity that Interacts with Treatment: Considerations of Efficiency and Power

Speaker: Yi Li, Harvard School of Public Health
Co-author: Rebecca Betensky, Harvard School of Public Health, David Louis, Massachusetts General Hospital, Gregory Cairncross, London Regional Cancer Centre
Abstract: Increasingly, genetic studies of tumors of the same histologic diagnosis are elucidating subtypes that are distinct with respect to clinical endpoints such as response to treatment and survival. This raises concerns about the efficiency of using the simple log rank test for analysis of treatment effect on survival in studies of possibly heterogeneous tumors. Furthermore, such studies, designed under the assumption of homogeneity, may be severely under-powered. We derive analytic approximations for the asymptotic relative efficiency of the simple log rank test relative to the optimally weighted log rank test and for the power of the simple log rank test when applied to subjects with unobserved heterogeneity, as reflected in a continuous frailty, that may interact with treatment. Numerical studies demonstrate that the simple log rank test may be quite inefficient if the frailty interacts with treatment. Further, there may be a substantial loss of power in the presence of the frailty, with or without an interaction with treatment.

2. A Multivalent Pairing Model of Linkage Analysis in Autotetraploids

Speaker: Samuel S. Wu, U of Florida
Co-author: Rongling Wu, U of Florida, Chang-Xing Ma, U of Florida, Zhao-Bang Zeng, North Carolina State U, Mark Yang, U of Florida, George Casella, U of Florida
Abstract: Polyploidy has been recognized as an important step in the evolutionary diversification of lowering plants and may have a significant impact on plant breeding. Statistical analyses for linkage mapping in polyploid species can be difficult due to considerable complexities in polysomic inheritance. In this paper, we develop a statistical method for linkage analysis of polymorphic markers in a full-sib family of autotetraploids. This method is established on multivalent pairings of homologous chromosomes at meiosis and can provide a simultaneous maximum likelihood estimation of the double reduction frequencies of and recombination fraction between two markers. The EM algorithm is implemented to provide a tractable way for estimating relative proportions of different modes of gamete formation that generate identical gamete genotypes due to multivalent pairings. Extensive simulation studies were performed to demonstrate the statistical properties of this method. The implications of the new method for understanding the genome structure and organization of polyploid species are discussed.

3. Combining Asymptotically Normal Tests

Speaker: Song Yang, Texas Tech U
Co-author: Li Hsu, Texas Tech U, Lueping Zhao, Texas Tech U
Abstract: When several candidate tests are available that each has nice properties with respect to different criteria such as efficiency and robustness, it is desirable to combine them. We discuss various combined tests based on asymptotically normal tests. When the means of two standardized tests under contiguous alternatives are close, we show that the maximum of the two tests appears to have an overall best performance compared with other forms of combined tests considered, and that it retains most power compared with the better one of the two tests combined. As an application, for testing zero location shift between two groups, we studied the Student t-, Wilcoxon, median tests and their combined tests. Because of their structural differences, the joint convergence and the asymptotic correlation of the tests are not easily derived from the usual asymptotic arguments of the tests. We use the martingale theory to obtain the asymptotic correlations and their estimators. Simulation studies were also performed to examine the small sample properties of these combined tests. Finally we illustrate the methods by a real data example.

4. Small Sample Confidence Regions for Exponential Families

Speaker: John E Kolassa, Rutgers U
Co-author: Bo Yang, Schering-Plough
Abstract: This paper describes multivariate approximate conditional confidence regions for canonical exponential families. These confidence regions have coverage probabilities that better approximate nominal levels than do traditional normal-theory regions, and will have boundaries that are smoother than are obtained by inverting traditional exact tests. Our method is based on constructing one-dimensional conditional tests, combining p values, and inverting.

Session 2: Analysis of Imaging and Spatial Data (combined with ENAR papers)

1. Adding More Observations to Saturated D-optimal Resolution III Two-level Factorial Designs

Speaker: Samad Hedayat, U of Illinois at Chicago
Co-author: Haiyuan Zhu, U of Illinois at Chicago
Abstract: We consider the class of saturated main effect plans for k factors each at two levels. With these saturated designs, the overall mean and all main effects can be unbiasedly estimated provided that there are no interactions. However, there is no way to estimate the error variance with such designs. Because of this and other reasons, we like to add some additional runs to the set of (k+1) runs in the D-optimal design in this class. Our goals here are:
(1) to search for s additional runs so that the resulting design based on (k+s+1) runs yields a D-optimal design in the class of augmented designs;
(2) to classify all the runs into equivalent classes so that the runs in the same equivalent class give us the same value of the determinant of the information matrix. This allow us to trade runs for runs if this becomes necessary.
(3) to obtain upper bounds for determinant of the information matrices of augmented designs. In this paper we shall address these approaches and present some new results.

Session 3: Analysis of Gene Expression Data(combined with ENAR papers)

1. Constrained Linear Group Symmetry Models

Speaker: Heng Li, U of Rochester
Abstract: The Linear Group Symmetry (LGS) Models as formulated in Anderson and Madsen (1998) serve as an effective mathematical framework for a host of statistical models. We illustrate through an example how some realistic scenarios in statistical modeling would fit in a slightly extended framework which allows constraints on the LGS parameters. The example is taken from quantitative genetics, but also seems to have applications in social science. We show how the perspective of group symmetry helps provide better understanding of the statistical properties of the model.

Session 4: Analysis of Recurrent Event Data (combined with ENAR papers)

1. A General Class of Models for Recurrent Events

Speaker: Edsel A Pena, U of South Carolina, Columbia
Abstract: A general class of models for recurrent events which simultaneously takes into account intervention effects, effects of accumulating event occurrences, and effects of concomitant variables, will be presented. This new class of models subsumes as special cases many existing models currently utilized for recurrent phenomena. Statistical methods for analyzing data arising from this class of models will be described.

Contributed Poster (with ENAR's)

1. Nonparametric Modeling of Auxiliary Covariate Data in the Generalized Linear Mixed Models
Speaker: Jianwei Chen, U of North Carolina at Chapel Hill
Co-author: Haibo Zhou, U of North Carolina at Chapel Hill, Jianwen Cai, U of North Carolina at Chapel Hill
Abstract: Auxiliary covariate problem arises frequently in biomedical studies when the primary exposure variables only assessed on a subset of the study subjects. In this paper, we investigate a semiparametric estimation method for a generalized linear mixed model with auxiliary covariate. We propose a nonparametric method to deal with auxiliary covariate information. The method can be use to handle the missing covariate or mismeasured covariate data problems in a variety of applications. Simulation study results show that the proposed method outperforms the random effect maximum likelihood estimator existing method. We illustrate the proposed method with a real data set from an ongoing environmental epidemiology study on the maternal serum DDE level in relationship to preterm births.

ENAR Sessions Co-sponsored by IMS

Session 1: The Use of Hypolotyes in Genetic Epidemiology

Organizer: Kathryn Roeder, Carnegie-Mellon U,
Speakers: Daniele Fallin, Michael Boehnke, Bernie Devlin

Session 2: Statistical Applications with Microarray Data

Organizer: Wei Pan, U of Minnesota, Speakers: Lue Ping Zhao, Kathleen Karr, Yi Lin, Hongyu Zhao

Session 3: Semiparametric Mixed Effects Regression Models

Organizer: Paul Rathouz, U of Chicago, Speakers: Daswan Zhang, Murray Aitkin, Peter Mueller, Ramani Pilla

Round of applause for CLAPEM in Cuba

The VIII Latin American Congress in Probability and Mathematical Statistics—CLAPEM—took place at Universidad de la Habana, Cuba, from November 12th to 16th, 2001. The CLAPEMs were until recently the only opportunity to bring together Latin American researchers in probability and statistics.

The IMS supported several delegates from Latin America by allocating travel awards. One of these delegates, Rosangela Loschi, Departamento de Estatística, UFMG, Brazil, writes, "This was the second CLAPEM I've attended: the first was when I was still a PhD student at Universidade de São Paulo. The financial support I received from the IMS was crucial to my participation in this CLAPEM because, as a young researcher, I don't have support from any other institutions. I was impressed with the high quality […] I believe it is important to encourage the participation of more students and young researchers in future CLAPEMs."

"Before attending my first CLAPEM," she continues, "I only had a few contacts with Latin American researchers, mainly in Chile. I now know about research in Argentina, Mexico, Uruguay, Cuba, Venezuela, Puerto Rico, Ecuador and others." CLAPEMs are a great opportunity for networking in Latin America.

Loschi discussed the importance of the CLAPEMs for the Latin American community with several of the participants.

Alicia Carriquiry, Iowa State U, Executive Secretary of IMS and ISBA President: "The CLAPEMs have significantly contributed to the creation of a community that goes across country lines. There have been active research groups in probability of international caliber in Latin America since the 1950s, but the interaction among scientists from various countries in the region, and creation of multi-country research groups is a new phenomenon, much helped along by the periodic contact that the CLAPEM, and now other smaller conferences, have provided."

View of Havana shoreline

Photo: Rosangela Loschi

Statistics itself has been raised up, she adds. "While probability has always been strong in Latin America, there was perhaps a tendency to 'look down' on any research that could be considered methodological or even applied. Starting with the 1993 CLAPEM in Brazil, organizers have made an effort to emphasize the more statistical side of the discipline by inviting some of the best statisticians in the world. Today, statistics, applied or methodological, is flourishing in the region, and this is to be explained in part by the programmatic influence that the CLAPEM has had in the past decade."

Carriquiry continues, "Most young scientists in Latin America do not have a chance to attend international conferences where the best people present their latest and greatest. The continued support of CLAPEM by organizations such as the IMS and the NSF is fundamental to continue the development of scientists and teachers in the region. Many Latin American scientists have made contacts during CLAPEMs that have opened opportunities for research collaborations, visits or graduate studies in centers in the US and Europe. While research groups in Brazil, Chile, Argentina and Mexico are comparable in quality and activity levels to the best groups in the US or Europe, let's not forget that the continent is much larger and that in places like Bolivia, Ecuador, and much of Central America there is still much to do in terms of outreach and opening new opportunities for development and growth."

The continued support of CLAPEM by IMS is fundamental to the development of scientists and teachers in the region

Daniel Peña, U Carlos III de Madrid, Spain, agrees. "I think CLAPEM plays a key role in the development of statistics in Latin America. Modern statistics grows from the interaction of different parts of statistics and computing as well as from new mathematical developments. This interaction may happen in other parts of the world from people visiting universities to give seminars or at informal workshops. However, in Latin America most statisticians work in small groups and the lack of resources in many areas makes interaction between researchers difficult. CLAPEM provides this forum for the interchange of new ideas and great opportunities for Latin American statisticians to learn from each other."

Gabriel Huerta, CIMAT, Mexico, says, "We must encourage more participation of students and colleagues in our countries. It is one of the few opportunities that we have to meet and listen to our peers in an international congress mainly organized by Latin Americans. I warmly congratulate the organizing and scientific committees for their success."

Guido del Pino, Pontifícia U, Catolica, Chile, organized an earlier CLAPEM, and appreciates the support of other academic groups. He adds, "I particularly value the help given to young students and assistant professors, which are a key factor for progress in the science." He says that

future CLAPEMs should appeal "to many students, particularly from the country where CLAPEM is being held. This is very important to increase the impact of these meetings."

Jim Berger, Duke U, USA, enjoys CLAPEM "very much, because I am able to learn about research that is happening in Latin America. Also it is a very nice way to begin new collaborations—and it is fun."

Júlio Singer, U São Paulo, Brazil, was at his first CLAPEM. "Although there were some flaws in the organization," he said, "I was impressed with the quality of the presentations and with the lively interaction between the participants."

Luiz Raul Pericchi, U of Puerto Rico, is enthusiastic. "There are only two meetings in the world to which I don't even think of not going… CLAPEM, and the Valencia Meetings on Bayesian Statistics. Why CLAPEM? It is the best way to keep track of what is happening in Latin America. It is also a pleasant way to meet new Latin American researchers and students, and some world-leading researchers, and to attend a couple of the best courses you can find anywhere. And because CLAPEMs are full of fun. It is this combination of science and fun, our region and the world, present and future, first class courses in established theories and conferences on hot new research, which makes CLAPEM unmissable. CLAPEMs (and Valencias) have influenced me tremendously." Pericchi feels that the organizers deserve recognition for their efforts. Looking to the future of CLAPEM, he continues, "I see lots of enthusiasm and possibilities for growth. The bulletin, the web page, the consolidation of the Francisco Aranda Ordaz award, the decision to undertake CLAPEM every two years, these are anticipating a lot to come. I would advise not to lose the momentum." Pericchi proposes making closer links with the IMS, to "join them in some of their scientific activities. There is a lot to be gained, by both parties, from a new partnership with IMS, adding to our association to the Bernoulli Society. We should not forget that IMS also fits our profile, it is a world organization and has given a very generous contribution to this CLAPEM."

Glaura da Conceição Franco, Departamento de Estatística, UFMG, Brazil, another travel grant recipient, said that CLAPEM was a great opportunity for meeting researchers from Latin America and Europe, and for experiencing Cuba. She adds, "The meeting had a wide variety of activities, most of them of a high level, enabling the participants to update their information about new research and methodologies being proposed, and also to interact with other researchers to discuss possibilities of collaborative work. CLAPEM offered a range of different areas where one could easily find something of interest." She liked having only mini-courses in the afternoons, as it was possible to attend the lectures and talks during the morning, and be able to follow a specific course after lunch. Franco added that the IMS travel grant was very important, since it is difficult to obtain financial support from Brazilian agencies.

So VIII CLAPEM was judged a success. The IX CLAPEM will be in Montevideo, Uruguay, from November 10-14, 2003.

http://imerl.fing.edu.uy/clapem

Photo: Fábio Machado

Gonzalo Perera, President of the Latin American Regional Committee of the Bernoulli Society, interviewed by Rosangela Loschi

What role do CLAPEMs play in the Latin American scientific community? The CLAPEMs are a great opportunity to obtain updated information about research work developed in Latin America and abroad, as well as a chance for PhD students to see what is new and cool in our field. CLAPEMs also bring together all members of the Latin America Bernoulli Society.

What was the importance of organizing the VIII CLAPEM in Cuba? This CLAPEM was a very important incentive to colleagues in Cuba; CLAPEMs should always be a way to encourage and support research groups in our region. At this Cuban CLAPEM we were honoured by a significant number of colleagues from USA, including international leaders in some research subjects.

What was the role of the IMS and Bernoulli Society in this VIII CLAPEM? The Bernoulli Society is the organizer of CLAPEM. The IMS gave very important financial support to this CLAPEM, in particular to young colleagues who without IMS support would not have been able to come to Cuba.

What were the difficulties and highlights? The committee faced the usual problems [financial and logistical, and some visa issues] but I think that they were satisfactorily solved. The high quality of the scientific work presented here, as well as the attendance of Masters and doctoral students, were the high points of this CLAPEM.

http://imerl.fing.edu.uy/larc/

OBITUARY

RALPH ALLAN BRADLEY, 77, Professor Emeritus of Statistics at both the Florida State University and the University of Georgia, who was a pioneering researcher in design of experiments, paired comparisons and nonparametric statistics, as well as a leader in the statistics profession, died peacefully at his home in Athens, Georgia on October 30, 2001.

Ralph was born in Smith Falls, Ontario, Canada on November 28, 1923, and grew up in Wellington, on the shores of Lake Ontario. He graduated from Queen's University in 1944 with an honors degree in Mathematics and Physics, served in the Canadian Army from 1944-45, and completed an MA at Queen's a year later. He received his Ph.D. in Statistics from the University of North Carolina, Chapel Hill, in 1949. His dissertation advisor was Harold Hotelling and his thesis studied the effects of nonnormality on two-sample t- and F-tests.

After a brief sojourn at McGill

University, Ralph joined the one-year old Statistics Program at Virginia Polytechnic University. He served there for nine years, and did some of his most famous work there, notably his collaboration with Milton Terry on paired comparisons. In particular, the renowned Bradley-Terry model is frequently cited and used in practice and was a signal contribution.

In 1959, Ralph's ambitions led him to move and he founded the Department of Statistics at the Florida State University. He served as head of department for nineteen years, until 1978, with the exception of ten months spent in Egypt during 1966, as consultant to the Ford Foundation and the Institute of Statistical Studies and Research at the University of Cairo. In 1970 he was named Robert O Lawton Distinguished Professor, FSU's highest faculty honor. During his time at FSU, Ralph developed a leading department while continuing work on paired comparisons, nonparametric statistics and trend-free experimental designs. In that period he developed, with Frank Wilcoxon, sequential rank tests.

In 1982, after twenty-three years at FSU, Ralph sought a new challenge and moved to the University of Georgia as Distinguished Research Professor, bringing major recognition to the department. In his time at Georgia, Ralph's research emphasized experimental designs, particularly gaining experimental efficiency through multiple blocking.

Ralph was a leading researcher throughout his career. He wrote over 110 research papers in such areas as design of experiments, paired comparisons, nonparametric statistics, sequential analysis, and multivariate analysis. Most of his papers stemmed from his statistical consulting on applied problems. His consulting with General Foods on statistical methods in product evaluation, often with Mavis Carrol and Cuthbert Daniel, was particularly influential in stimulating his own research and the research of others.

Ralph was a leader in the statistics profession and in professional societies. He was editor of *Biometrics* from 1957 to 1962, President of the Eastern North American Region (1963-65), and Vice-President (1975-78) and President (1981) of the American Statistical Association. He was an editor for the Wiley Series on Probability and Statistics from 1954-1998.

Ralph received numerous honors. He was elected Fellow of the American Statistical Association (1973), the Institute of Mathematical Statistics and the American Association for the Advancement of Science (1963) and an elected member of the International Statistical Institute (1970). He received Founders' Awards from the ASA and the Southern Regional Committee on Statistics (SRCS) in 1992, as well as the SRCS Paul Minton service award in '94. He was a pillar of the statistics community, teaching many people how to be professionals, and making it exciting to be a faculty member at a major university.

Ralph led a balanced life. He loved fishing, boating, golf, bridge and tennis. He was a master craftsman who was extremely talented at woodworking and restoring antique cars, and a perennial globetrotter. Married to Marion for over 55 years, he reveled in his family, his children Allan and Linda and grandchildren Jonathan, Allison, Alex and Caileigh, and his extended families in Canada and America. In addition, he left many friends who admired him and within whom his spirit lives.

Myles Hollander, The Florida State University

IMS COUNCIL MEMBERS for 2002

Peter Bickel, Peter Donnelly, Wayne Fuller, Evarist Gine, Rob Kass, Wilifrid Kendall, Thomas Liggett, Regina Liu, Peter McCullagh, John Rice, Bill Strawderman, Jessica Utts, Wing Wong, Michael Woodroofe, Bin Yu

OBITUARY

FRANCIS JOHN ANSCOMBE, an influential statistician who taught at Cambridge, Princeton and Yale Universities, died in New Haven, CT, on October 17, 2001, after a long bout with Alzheimer's disease. He was 83.

Frank Anscombe began teaching at Cambridge University in 1948. He joined the faculty of Princeton University in 1956, moving to Yale in 1963 to found its Department of Statistics. Professor Anscombe was a pioneer in the application of computers to the statistical analysis of data. He argued persuasively that residuals be examined to diagnose the applicability of a postulated model. A classic paper (1973) showed that one equation could fit four very different data sets, illustrating the care that should be exercised in interpreting data. Anscombe published fifty research articles, plus one book, *Computing in Statistical Science through APL* (1981). His expertise included sampling inspections for industrial quality control, the philosophical foundations of probability and statistics, treatment of outliers, and analysis of variance.

Frank Anscombe grew up in Hove, England. His father, Francis Champion, worked for chemical companies; his mother, Honoria Constance, taught high school mathematics. Their son attended Trinity College, Cambridge, England, on a merit scholarship. He graduated with first class honors in mathematics in 1939, followed by a master's degree in 1943.

During WWII, Anscombe worked for the British Ministry of Supply on industrial production and deployment of weapons. In 1940, he contributed to a project for aiming anti-aircraft rockets at German bombers. In 1944, Anscombe contributed to a strategy of massing guns to knock down German V-1 buzz bombs, terror weapons that rained on English cities. Anscombe also developed a mathematical solution for firing rockets during D-Day, when a bad sequence could have resulted in projectiles falling on British forces. "Of course we were never told what was the operational outcome," recalled his colleague David Kendall, later a Cambridge professor, "but photographs recently supplied by the Imperial War Museum show these 'Mattress' rockets in action, and reveal that the recommended firing-sequence was indeed a success."

After the war, Anscombe spent two years at the Rothamsted Experimental Station, applying statistics to agriculture. This helped form his appreciation for problems with social relevance. He observed that it is "not expected in the academic world […] that research be relevant to anything. The field of statistics would be in better shape if it were the usual practice for the most exciting new PhDs to spend several years in a research team that had some definite mission." Quality expert, W. Edwards Deming, quoted Anscombe's pragmatic view that it is better to "realize what the problem really is, and solve that problem as well as we can, instead of inventing a substitute problem that can be solved exactly, but is irrelevant."

A conscientious teacher and generous colleague, Professor Anscombe enjoyed respect within his profession. David Kendall, told by his wartime boss to learn statistics, recalled "he was kind enough to give me a week in which to do this, and what I did was to go to London, and stay in Anscombe's digs and talk to him until the small hours every night, as during the day he was busy with other things. That is the only statistical instruction that I have ever received, but I have found it more than sufficient for most of my needs." In 1955, noted statistician John W. Tukey wrote his Princeton colleagues recommending appointment of Anscombe since he wanted "some one to talk to, not at."

Anscombe enjoyed poetry, art, and music. In December 1944, out of concern for Ezra Pound, who had been condemned by the U.S. Government as a traitor, Anscombe wrote poet T. S. Eliot that Pound's "death sentence is scurvy treatment of one to whom the world owes much and I would greatly like, if possible, to do something towards getting things put right." Eliot replied with the hope "that there will be time for Pound's admirers to make an effective protest." During 1951, impressed by then little-known surrealist painter Francis Bacon, Mr. Anscombe purchased a Bacon work on behalf of the Fitzwilliam Museum at Cambridge. After displaying the painting for a few months, the Museum returned it as too modernist. When Bacon became renowned, Mr. Anscombe sold this work to pay for educating his children.

Professor Anscombe enjoyed the musical compositions of Charles Ives, William Billings, and Benjamin Britten. He composed poems and light songs. Another love was hiking, from the English South Downs to the White Mountains of New Hampshire.

Professor Anscombe is survived by his wife, Phyllis; three sons, Francis R, Anthony, and Frederick; daughter, Elizabeth; five grand-daughters; brother, Anthony; and caregiver Linnette Carroll.

F R Anscombe and Phyllis Anscombe

PROFILE: The Isaac Newton Institute for Mathematical Sciences, Cambridge, UK

Sir John Kingman writes: I took up office as the third Director of the Isaac Newton Institute in October 2001, and the first with a statistical background. The INI started in 1992 under the leadership of Michael Atiyah, and has evolved a successful formula for contributing to the whole range of pure and applied mathematics.

Each year the Institute runs three six month programmes, one of four months and one of four weeks, so that at any time there are two programmes running in parallel. These are selected, usually three years ahead, by a Scientific Steering Committee of mathematicians drawn from across the UK with some members from other countries. Suggestions are always welcome, and the approved programmes are entrusted to a group of organisers, normally international in composition.

Subjects chosen may be areas within mathematics, or may be applications for which a coming together of mathematicians and experts in an applied field can be fruitful. Among those in which successful programmes have been run are

- epidemic models
- random spatial processes
- computer security, cryptology and coding theory

Future plans include computation, combinatorics, probability, and interaction and growth in complex stochastic systems.

An obvious gap is in the data analysis side of statistics, and I would be glad to see ideas for programmes on recent approaches to statistical methodology.

The Institute is housed in its own purpose designed building, which has proved to be a fertile environment for mathematical interaction. Every long term participant has desk and computer facilities, but coffee machines and blackboards abound to tempt one out of the office to talk mathematics and prove theorems. Arrangements are made for housing and catering, and each programme involves workshops that attract further participants who cannot attend the whole meeting.

Next door to the Institute a major building complex is nearing completion, housing the mathematics departments of Cambridge University and including an excellent library. Our visitors enjoy access to this library (as well as that in the Institute) and to the seminars and other activities of the various Cambridge groups. At the same time, we have our own Newtonian life style, and distinct Institute activities.

Feedback from those who have stayed at the Isaac Newton Institute is almost always favourable (except about the Cambridge climate), and this may be the reason organisers usually find it easy to attract mathematicians from all around the world. The collaborations that start here often continue after the participants have scattered, and there are many important papers that contain an acknowledgement to the INI programme at which the ideas first germinated.

I look forward to welcoming, over the years, many members of IMS to the Isaac Newton Institute. I can promise them a warm welcome, and an exciting and mathematically fruitful stay.

www.newton.cam.ac.uk

Sir John Kingman is a Fellow of the IMS and a former President of the Royal Statistical Society. He held professorships of mathematics and statistics in the Universities of Sussex and Oxford between 1969 and 1985, and was then Vice-Chancellor of the University of Bristol until he took up the Directorship of the Isaac Newton Institute in 2001. He is also Chairman of the Statistics Commission, set up by the UK Government to monitor the quality and integrity of official statistics.

National Institute of Statistical Sciences
PO Box 14006 Research Triangle Park, NC 27709–4006
Tel 919.685.9300
FAX 919.685.9310

Postdoctoral Fellowships, 2001

NISS is accepting applications from statistical and other scientists for postdoctoral positions as Junior Fellows. At least three appointments are anticipated. Starting dates are flexible; most are envisioned to be in July or September, 2001, but earlier dates are also possible.

In accordance with the NISS mission, Junior Fellows participate in one or more cross-disciplinary research projects, in collaboration with statisticians and other scientists from universities, industry, national laboratories and government agencies. They are mentored by senior statisticians and scientists, and interact strongly with one another.

Current NISS activities are in the rapidly developing areas of:

- Bio- and chemo-informatics
- Digital Government: developing strategies and systems to disseminate statistical analyses that protect confidentiality of data
- Network and E-commerce data (for example, analysis and visualization of Web site activity)
- Transportation, including trip generation and traffic signalization
- Statistical issues in the evaluation (validation) of complex computer models.

Other opportunities are expected to arise in connection with the NISS affiliates program.

Criteria for selection include demonstrated research ability in statistics or a relevant scientific discipline, interest and (to a lesser degree) experience in project areas, strength in computation and in verbal and written communication, and genuine commitment to cross-disciplinary research.

Appointments will be for two years, with extensions possible. The salary is currently $52,500 per year.

Applicants for positions starting in 2001 should have received (or expect to complete) a doctorate in 1995 or later. Women and members of minority groups are particularly encouraged to apply.

Applications should consist of a letter of interest containing addresses (including E-mail), telephone numbers and citizenship status; three letters of reference; a one-page biographical sketch; a publication record or thesis topic; and a one-page statement of interest responding to the criteria and projects listed above. The items should be submitted electronically, as PDF files if possible (Microsoft Word and PostScript are also acceptable), and sent to `postdoc-application@niss.org`.

Send requests for additional information to:

National Institute of Statistical Sciences
PO Box 14006
Research Triangle Park, NC 27709–4006
Telephone: 919.685.9300
FAX: 919.685.9310
World Wide Web: `www.niss.org`

The deadline for full consideration is March 15, 2001. Later applications will be considered as resources permit.

NISS is an AA/EEO employer

Employment Opportunities around the world

CANADA

University of Toronto

Canada Research Chair

Department of Statistics and Department of Computer Science

The Department of Statistics and the Department of Computer Science at the University of Toronto invite applications for a tenure stream appointment, rank open, with a preference for Full Professors. It is intended to nominate the successful candidate to a Canada Research Chair. The two departments share a research cluster in data mining, machine learning, and statistics, which is anchored by four Canada Research Chairs.

Candidates are expected to be outstanding scholars, whose research and teaching will make major contributions to the quality and stature of the two departments. Appointments will be made at the rank of either Associate or Full Professor, to begin July 1, 2002. Salary will be commensurate with experience.

Letters of application, curriculum vitae, and statements on research and teaching, should be submitted to Professor Nancy Reid, Chair, Department of Statistics, University of Toronto, Toronto, Canada M5S 3G3. Names of four scholars who can serve as external referees should be provided. We will begin reviewing applications after February 15, 2002, and continue until the position is filled.

The University of Toronto offers the opportunity to teach, conduct research and live in one of the most diverse cities in the world, and is strongly committed to diversity within its community. The University especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to further diversification of ideas.

POST-DOCTORAL POSITION IN STATISTICS

University of Waterloo

Applications are invited for the position of post-doctoral fellow in statistics, to be held in the Department of Statistics and Actuarial Science at the University of Waterloo. The fellow would join a team developing statistical models and algorithms for the analysis of high-dimensional data. A key application area is analysis of high throughput screening data in the search for new pharmaceutical drugs. Researchers involved in the project include Professors HA Chipman, WJ Welch and SS Young (of GlaxoSmithKline and an adjunct Professor at the University). Other application areas are being considered, including direct marketing, insurance, and industrial applications. Specific methods of interest include classification and clustering of large data sets, with the attendant development of algorithms to handle large amounts of data. Candidates must possess a recent PhD in Statistics or Computer Science with strength in the other discipline. An interest in teaching and good communication skills would be an asset. The initial appointment will be for one year, with the possibility of renewal for a second year. The deadline for applications is April 30, 2002, but the position may be filled earlier than that date. Interested persons are encouraged to send a curriculum vitae and have three letters of reference sent to:

Professor D.E. Matthews, Chair
Statistics and Actuarial Science
University of Waterloo
Waterloo, Ontario
CANADA N2L 3G1

In accordance with Canadian immigration requirements, citizens and permanent residents of Canada will be considered first for this position. The University of Waterloo encourages applications from all qualified individuals including women, members of visible minorities, native peoples, and persons with disabilities.

CHINA

Peking University

Beijing, China

Guanghua School of Management at Peking University (www.gsm.pku.edu.cn), a leading business school in China, is establishing a new Department of Statistics and Econometrics. Full time and visiting faculty positions at all ranks are available. Requirements: Ph.D. in statistics or econometrics and a strong research record or potential. Starting salary: US$40K-$60K. Housing benefits and flexible sabbatical leaves. Please send a CV, three reference letters and a statement on teaching and research to Professor Rong Chen, Department of IDS (MC294), University of Illinois at Chicago, 601 South Morgan Street, Chicago, IL 60607. Phone: 312-996-2323.

UNITED KINGDOM

University of Edinburgh, UK

Open-ended Statistics lectureship available from 1st October 2002

Applications are invited from all areas of statistics and probability from people with a research record of high quality and promising research plans who will contribute actively to undergraduate and postgraduate teaching programmes. An ability to contribute to the Honours programme in Statistics is essential. Salary in range £20,267 - £32,215.
Informal enquiries to Professor T A Gillespie (tel: 0131 650 5062, fax 0131 650 6553, e-mail hod@maths.ed.ac.uk)
Further details from http://www.maths.ed.ac.uk/jobs;
application forms (11A and 18) from http://www.personnel.ed.ac.uk/Pubs/AppPackA.doc or .PDF
Closing date 15th February 2002.
Reference 311047.

SINGAPORE

Founded 1905

National University of Singapore

Department of Statistics and Applied Probability

FACULTY SEARCH

The Department of Statistics and Applied Probability, National University of Singapore, invites applications for the following:

i) Tenure-track Assistant Professor (appointments at higher levels may be considered subject to funding position)
ii) Visiting positions
iii) Research Fellows

Applicants should have a PhD in Biostatistics/Statistics. All areas of Biostatistics will be considered. Evidence of strong research potential and high quality teaching are also required for both positions. Preference will be given to applicants in the areas of Statistical Genetics, Clinical Trials, Neuro Imaging, Multivariate Survival Analysis and Environmental Biostatistics.

Interested parties should send their applications, supported by a curriculum vitae, and arrange for at least three reference letters to be sent directly to:

Biostatistics Search Committee
Department of Statistics and Applied Probability
National University of Singapore
3 Science Drive 2
Singapore 117543

E-mail: stans@nus.edu.sg

Applications should be mailed by post or via e-mail by **31 March 2002.** The search will continue until the positions are filled. For more information about the Department, visit our website at http://www.statistics.nus.edu.sg/.

UNITED STATES OF AMERICA

Assistant Professor
Department of Mathematics
University of Connecticut

The Department of Mathematics anticipates several openings for tenure-track positions at the Assistant Professor level, starting Fall, 2002. Appointments at higher levels are possible in exceptional cases. Candidates must have a Ph.D. and strong evidence of excellent research and teaching ability. Targeted areas of hiring are financial mathematics and computational methods in mathematics. Preference will also be given to candidates whose research interests strengthen existing programs within the department, in particular, analysis and topology. Salary is commensurate with experience.
The review of applications will begin in December, 2001. Send resume and at least three letters of recommendation to Hiring Committee, Department of Mathematics, U-9, University of Connecticut, Storrs, CT 06269. The University of Connecticut is an Equal Opportunity and Affirmative Action Employer. We encourage applications from underrepresented groups, including minorities, women and people with disabilities.

Postdoctoral Fellow
Department of Mathematics
University of Connecticut

The Department of Mathematics anticipates 3-5 openings for Postdoctoral Fellow positions beginning in Fall, 2002. Candidates must have received a Ph.D. within the last four years and demonstrate evidence of excellent teaching ability and outstanding research potential. The positions are for a maximum of three years. Postdoctoral Fellows normally teach two courses a semester and are expected to participate in the research activities of the department. Preference will be given to candidates whose research interests intersect those of the permanent faculty.
The review of applications will begin January 1, 2002. Send resume and at least three letters of recommendation to Hiring Committee, Department of Mathematics, U-9, University of Connecticut, Storrs, CT 06269. The University of Connecticut is an Equal Opportunity and Affirmative Action Employer. We encourage applications from underrepresented groups, including minorities, women and people with disabilities.

Georgia Tech
School of Industrial and Systems Engineering
Assistant/Associate/Full Professor of Statistics

Positions available for Assistant/Associate/Full Professor of Statistics in the School of Industrial and Systems Engineering at Georgia Tech. The department has Georgia Tech's largest Ph.D. program in Statistics with an emphasis in statistical methods for industry and engineering technology. Please see our homepage at http://www.isye.gatech.edu/statistics. All areas of statistical expertise will be considered, with preferences given to applicants interested in engineering applications.
We strongly encourage women and minorities to apply. Appointment is contingent upon receiving Ph.D. degree by hire date.
Interested individuals should:
(1) Fill out the Faculty Candidate Application page at http://www.isye.gatech.edu/candidate, and
(2) Submit a letter of application and a resume to:
Dr. William B. Rouse
Industrial & Systems Engineering,
Georgia Institute of Technology,
Atlanta, GA 30332-0205.
Questions may be directed to brouse@isye.gatech.edu or paul.kvam@isye.gatech.edu.
Review of applications will begin January 14, 2002.
Georgia Tech is an Equal Education and Employment Institution.
A Unit of the University System of Georgia

FACULTY POSITION(S) IN STATISTICS
INDIANA, WEST LAFAYETTE
Department of Statistics, Purdue University

The Department of Statistics at Purdue University has one or more openings for faculty positions. Screening will begin December 1, 2001, and continue until the position(s) is (are) filled.

Essential Duties: Conduct advanced research in statistical sciences, teach undergraduate and graduate students and maintain service in the Statistics Department.

Essential Qualifications: Require Ph.D. in Statistics or related field, in hand or expected by August 12, 2002. Candidates must demonstrate potential excellence in research and teaching. Salary and benefits are competitive and commensurate with qualifications. Rank and salary are open.

Candidate for assistant professor should send a letter of application, curriculum vita and three letters of reference. For senior positions, send a letter of application or nominations, curriculum vita, and the names of three references.

Purdue University is an AA/EO employer and educator.

Send applications to: Mary Ellen Bock, Head, Department of Statistics, Purdue University, 1399 Mathematical Sciences Building, West Lafayette, IN 47907-1399, USA.

Chair and Director

Department of Statistics and Statistical Laboratory
Iowa State University

Applications are invited from persons interested in providing vision and active leadership as Chair of the Department of Statistics and Director of the Statistical Laboratory at Iowa State University (Statistics DEO).

The Statistics DEO directs large and evolving research, educational, and outreach programs in statistics. Faculty in the Department of Statistics and Statistical Laboratory cultivate vibrant collaborative research programs. Long-standing cooperative relationships exist with campus and federal centers, including the Institute for Social and Behavioral Research, Center for Nondestructive Evaluation, Center for Agricultural and Rural Development, and various agencies in the federal statistical system. Recent initiatives include the establishment of the Laurence H. Baker Center for Bioinformatics and Biological Statistics, an NSF-sponsored Vertical Integration of Graduate Research and Education (VIGRE) program, and a new interdisciplinary survey research center. As part of the VIGRE program, faculty-student discussion groups meet regularly to discuss research in several areas, including bioinformatics, engineering, environmental, graphical, social, survey, and theoretical statistics. Individual faculty members receive research grants from a variety of agencies, including NSF, NIH, HHS, ONR and USDA.

The Department of Statistics and Statistical Laboratory has 35 faculty, several of whom hold joint appointments in a variety of other departments. There are also several collaborating faculty at The Mayo Clinic. The large graduate program supports 150 graduate students from the US and abroad, with nearly 40 graduate level course offerings in theoretical and applied statistics. The MS program in statistics is also offered at a distance to several companies. The Department has a small and growing undergraduate program in statistics. The Department is responsible for nearly all of the undergraduate and graduate statistics courses in other disciplines on campus. Computing facilities include Unix workstations, personal computers, and access to super computers.

The DEO's duties and responsibilities include providing innovative leadership for the Department of Statistics and Statistical Laboratory. The DEO is expected to work with faculty to develop a forward-looking vision for continued development of excellent academic programs, and can expect excellent support from the University's administration, which values statistics as a flagship program.

Minimum qualifications are a Ph.D. in statistics or a related field; qualifications for appointment as full professor, including a distinguished and ongoing program of funded research in statistics, probability or related fields; demonstrable leadership skills. Experience in undergraduate and graduate teaching and directing graduate student research is preferred. Salary is competitive and commensurate with qualifications. The position is a 12-month appointment, with a preferred starting date of July 1, 2002. Submit letter of application, curriculum vitae, and contact information (name, address, telephone number, and email address) for four references to:

DEO Search Committee Chair
Department of Statistics
102 Snedecor Hall
Iowa State University
Ames, IA 50011-1210

Applications received by March 1, 2002 are assured consideration. AA/EOE. For more information, visit www.iastate.edu/~stat or contact the Search Committee Chair, Distinguished Professor of Mathematics Max Gunzburger (gunzburg@iastate.edu).

Iowa State University is a Carnegie Research I institution and a member of the AAU, with strong programs in science and technology. Ames is a pleasant college town, recently ranked by US News & World Report as the second most livable town in its class in the US. It is conveniently located near the Des Moines metropolitan area and within a few hours of Minneapolis and Kansas City.

Assistant Professor in Actuarial Science
Department of Statistics and Actuarial Science
University of Iowa
http://www.stat.uiowa.edu/

Applications are invited for a tenure-track assistant professor position in actuarial science starting August 2002. Applicants must show promise for excellence in both teaching and creative research. They should have earned a Ph.D. degree in a relevant field and either an Associateship or Fellowship in a professional actuarial society. Desirable qualifications include practical actuarial experience and training in economics and finance. The selection process has begun and will continue until the position is filled. Please send a curriculum vitae, and have three letters of reference sent directly to Actuarial Search Committee, Department of Statistics & Actuarial Science, University of Iowa, Iowa City, IA 52242. Email: broffitt@stat.uiowa.edu.

The department currently has 16 faculty who are engaged in a variety of research areas including spatial and environmental statistics, categorical data analysis, censored data, time series, chaos, order restricted inference, Bayesian statistics, MCMC simulation, and various aspects of actuarial science and financial mathematics. We offer the B.S. and M.S. in both actuarial science and statistics, and the Ph.D. in statistics. Actuarial students may earn a Ph.D. in statistics with emphasis in actuarial science and financial mathematics. In 2000-2001 actuarial science majors included about 45 graduate and 25 undergraduate students. Undergraduate pre-actuarial science majors numbered around 40.

The University of Iowa is nestled in the rolling hills of eastern Iowa along the banks of the Iowa River. Approximately 28,000 students are enrolled in eleven colleges: Liberal Arts and Sciences, Graduate, Business, Law, Medicine, Public Health, Dentistry, Nursing, Pharmacy, Education and Engineering. The University is known for its fine arts, and a variety of touring dance, musical, and theatrical groups perform on campus each year. As a member of the Big Ten Conference, Iowa hosts many outstanding athletic events.

Iowa City is a clean, attractive community of approximately 70,000 people. It is noted for its public schools, medical and athletic facilities, attractive business district, parks, and mass transit system. In 1999, Editor and Market Guide rated Iowa City as the best metropolitan area to live in the USA. Iowa City is within 300 miles of Chicago, St. Louis, Kansas City, and Minneapolis.

Women and minorities are encouraged to apply. The University of Iowa is an Affirmative Action Equal Opportunity Employer.

WILLIAMS COLLEGE
DEPARTMENT OF MATHEMATICS AND STATISTICS
WILLIAMSTOWN, MASSACHUSETTS 01267

Tenure-track position in statistics, beginning fall 2002, at the rank of assistant professor; in exceptional cases, however, more advanced appointments may be considered. Excellence in teaching and research and a Ph.D. at the time of appointment are required. Please send a vita and have three letters of recommendation on teaching and research sent to

The Statistics Hiring Committee, Department of Mathematics and Statistics, Williams College, Williamstown MA 01267. Evaluation of applications will begin on or after December 10 2001. As an EEO/AA employer, Williams especially welcomes applications from women and minority candidates.

Department of Mathematical Sciences
Johns Hopkins University
Lecturer

Johns Hopkins University seeks highly qualified candidates for a teaching position (Lecturer) in the Department of Mathematical Sciences (www.mts.jhu.edu). This full-time position is renewable indefinitely subject to performance and funding, and has promotion opportunity. The focus of the Department is modern applied mathematics including probability, statistics, optimization, operations research, discrete mathematics, and numerical analysis.

Candidates should have a strong commitment to undergraduate education and hold a Ph.D. in mathematics or statistics. Applicants should have their CV, teaching statement, copies of recent teaching evaluations, and three letters of recommendation sent to:

Lecturer Search Committee, Mathematical Sciences Department, JHU, 3400 N. Charles, Baltimore, Maryland 21218-2682. Materials should be received by 2/1/02. AA/EOE/ADA.

Worcester Polytechnic Institute
Mathematical Sciences Department

The WPI Mathematical Sciences Department anticipates tenure-track faculty positions in 2002. Candidates at all academic ranks will be considered. An earned Ph.D. or equivalent degree is required. Applications are especially encouraged in the areas of biostatistics, computational statistics, experimental design, Bayesian methods, and time series analysis.

For information about the department, see http://www.wpi.edu/+math.

Send a detailed CV, one-page statement of teaching and research objectives, and names of four references with mail/email addresses and telephone/fax numbers to Statistics Search Committee, Mathematical Sciences Department, WPI, 100 Institute Road, Worcester, MA 01609-2280, USA. AA/EOE/ADA

Faculty Positions in Biostatistics
University of Minnesota, School of Public Health

Full/Associate Professor of Biostatistics

The Division of Biostatistics, School of Public Health, at the University of Minnesota has a tenured or tenure-track faculty position available at the Professor or Associate Professor level.

We are especially interested in individuals with a strong record of research and participation in clinical trials. Interested applicants will also be considered as candidates to serve as Director of a new Clinical Trials Center within the new Division of Biostatistics. We will also give serious consideration to applicants with a strong research record in longitudinal data analysis, time series, statistical genetics and related areas.

Assistant Professor of Biostatistics

The Division of Biostatistics, School of Public Health, at the University of Minnesota has a tenure-track faculty position available at the Assistant Professor level.

We are interested in individuals with training in statistical genetics. Consideration will also be given to applicants with a strong background in other areas, including bioinformatics, proteomics, longitudinal data analysis, or time series.

Faculty members are expected to develop an independent research program. Potential exists for collaboration with researchers in the School of Public Health, Medical School, and the Biomedical Genomics and Bioinformatics Centers.

The Division of Biostatistics (www.biostat.umn.edu) currently includes 21 graduate faculty and 87 staff. The Division offers MS, MPH and PhD degrees, and interacts in teaching and and advising with the U of Minnesota School of Statistics. Faculty expertise exists in analysis of spatial and longitudinal data, Bayes and empirical Bayes methods, computer-intensive methods such as Markov chain Monte Carlo, survival analysis, longitudinal models, and generalized linear models.

The Division is home for the statistical co-ordinating centers for a number of clinical trials in HIV/AIDS, lung disease, and cardiovascular disease. Other major research areas of the division include research in cancer prevention and treatment, dental research, environmental and occupational health, health policy, chronic care and smoking prevention. Multi-year grants and contracts for various Divisional projects total over $75 M.

Successful candidates will be responsible for teaching and advising students at the graduate level. The salary range for these faculty positions will be very competitive, and the University of Minnesota offers excellent fringe benefits.

To apply, please send a letter specifying interest in the Full/Associate Professor or Assistant Professor position, names and addresses of three referees, and curriculum vitae by February 18th, 2002 to: Dr. James Neaton, Chair of Search Committee, Division of Biostatistics, A460 Mayo Building Box 303, 420 Delaware Street SE, Minneapolis, MN 55455-0378.

The University of Minnesota is an equal opportunity educator and employer.

Cornell University
Operations Research & Industrial Engr.

Tenure-track or tenured position. Rank open. PhD required in statistics, OR, CS, or related field. Duties include providing leadership in the development of programs in data mining. Excellence in research and teaching is required. Experience beyond the PhD and willingness to work with students and sponsors on business applications desirable. ORIE at Cornell is a diverse group of statisticians, probabilists, math programmers, and those working in simulation and manufacturing systems. An ideal candidate will have broad training and interests. Membership in Cornell's Department of Statistical Sciences or Faculty of Computing and Information would be possible, depending on candidate's interests and desires. CV, 1-page statement of research and teaching interests, doctoral transcript for junior applicants, and four letters should be sent to
Statistics/DM Search, ORIE, Rhodes Hall, Cornell University, Ithaca, NY 14853. Applications completed by January 10, 2002 given preference. More information at http://www.orie.cornell.edu.

Cornell University, Department of Social Statistics

The Department of Statistical Science at Cornell University invites applications for a tenure-track faculty position in the Department of Social Statistics to begin August 26, 2002. Applicants from all areas of statistics will be considered. A Ph.D. in Statistics and commitment to outstanding research and teaching at both the undergraduate and graduate levels are required. The ability to participate in interdisciplinary programs is desirable. See www.stat.cornell.edu for more information. Send a curriculum vitae and a statement of research/teaching interests and arrange for three letters of recommendation to be sent to Search Committee, Department of Social Statistics, Cornell University, 358 Ives Hall, Ithaca, NY 14853-3901. Women and minority candidates are especially encouraged to apply. Cornell University is an affirmative action/equal opportunity employer.

University of Rochester
Rochester, NY

The Department of Biostatistics at the University of Rochester has an **immediate** opening for a tenure-track Assistant or Associate Professor. Individual research, collaborative research, consulting, and teaching within the Medical Center. Teaching and advising for doctoral program in statistics. Send c.v., transcripts if new PhD., three recommendation letters to Dr. David Oakes, Chair, Department of Biostatistics, University of Rochester Medical Center, 601 Elmwood Avenue, Box 630, Rochester NY 14642. **AA/EOE. Applications from women and minorities especially encouraged.** Also NIH-sponsored postdoctoral positions are available for US citizens or permanent residents.

Department of Statistics
Carnegie Mellon University

Applications are invited for possible tenure-track and visiting positions. Carnegie Mellon offers a supportive faculty environment, emphasizing a combination of disciplinary and cross-disciplinary research and teaching. All areas of statistics are welcome, and joint appointments with other units in the Pittsburgh area are possible. We especially encourage women and minorities to apply. More details at http://www.stat.cmu.edu. Application screening begins immediately and continues until positions closed. Send CV, research papers, relevant transcripts and three letters of recommendation to: Chair, Faculty Search Committee, Department of Statistics, Carnegie Mellon University, Pittsburgh, PA 15213, USA. AA/EOE.

Department of Statistics, Penn State University, University Park, PA

One non-tenure track, (fixed term 1-3 years) open rank TEACHING FELLOW faculty position starting July 2002. Excellence in teaching and web-based instruction required. Duties include teaching service courses in Masters program and course development for the online/continuing education World Campus program. Research and professional development encouraged.

Qualifications include a Ph.D. in Statistics, Applied Statistics, Biostatistics, or related field. Salary is competitive and commensurate with experience. Send a cover letter including a written statement of teaching philosophy and experience, CV, and contact information of three references to: Dr. James L. Rosenberger, Department of Statistics, 326FI Thomas Building, Penn State University, University Park, PA 16802-2111 Applications considered from February 15 until position filled. For additional information, see <www.stat.psu.edu>. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

University of Oregon - Department of Mathematics

Applications are invited for one Visiting Professor position in statistics beginning in September 2002, ending in June 2004. Qualifications are a Ph.D. in the mathematical sciences or statistics and evidence of ability to teach statistics courses. This is a two-year visiting position, open to all ranks, with competitive salary and good fringe benefits. Send complete resume and at least three letters of recommendation to Statistics Hiring Committee, Department of Mathematics, 1222 University of Oregon, Eugene, OR 97403-1222. Consideration of applications will begin February 15, 2002. Final deadline for applications is May 1, 2002. Women and minorities are encouraged to apply. An EO/AA/ADA institution committed to diversity.

University of Texas at Dallas
Richardson, Texas

The Department of Mathematical Sciences is anticipating one or more tenure track/tenure position(s) in statistics/biostatistics beginning Fall 2002. Although we anticipate appointment(s) at a junior level, a senior level appointment is possible. Candidates should have a Ph.D. in biostatistics, statistics, or related areas with strong commitment to excellence in teaching, research, and the ability to interact with the faculty at the UT Southwestern Medical Center at Dallas performing research in biostatistics. Please send vita, letter of application and at least three letters of recommendation to: Academic Search # 2048, MS AD23, P.O. Box 830688, University of Texas at Dallas, Richardson, TX 75083-0688. Applications will be accepted until 3/15/02 or until the position is filled. Additional information is available at www.utdallas.edu/dept/math/ biostat.html. The University of Texas at Dallas is an AA/EO employer.

International Calendar of Statistical Events

IMS meetings are highlighted in maroon and new or updated entries are in bold. For further information please use the contacts listed. t means telephone, f fax, e email and w website. Please send additions and corrections to Tati Howell at bulletin@imstat.org

2002

January

Auburn, Alabama. International Linear Algebra Society Conference: Challenges. F Uhlig, Dept of Mathematics, Auburn University, AL 36849-5310 **e** uhligfd @mail.auburn.edu

6-11: Napier, New Zealand. New Zealand Mathematics Research Institute 8th Summer Workshop on Applications of Stochastic Processes. **w** www.stat.auckland.ac.nz/napier2002/

10-13: Shenzhen, China. The Second Natinal Quality of Life Symposium. Mr Hao Yuan-Tao **t** 86-20-87330673, **f** 86-20-87331605; **e** haoyt@gzsums.edu.cn or Miss Wong Wai Wah **t** 852-29586173, **f** 852-29586719, **e** wongww@ha.org.hk

14-17: Caracus, Venezuela. International Workshop in Applied Probability. Professor Jose Luis Palacios, **e** jopala@cesma.usb.ve

15-18: Habana, Cuba. Neuro-Fuzzy NF'2002. CSC International Computer Science Conventions, NAISO Natural and Artificial Intelligence Systems Organizations, 5101C - 50 Street, Wetaskiwin AB, T9A 1K1, Canada **t** +1-780-352-1912, **f** +1-780-352-1913, **e** Operating Division: operating@icsc.ab.ca; Planning Division: planning@icsc.ab.ca

16-19: Capitolio di Havana, Havana. First International ICSC-NAISO Congress on Neuro Fuzzy Technologies NF 2002. **e** secretariat: nf2002@itstransnational.com **w** www.icsc-naiso.org/conferences/nf2002/index.htm

February

4-8: Smolenice, Slovak Republic. ProbaStat 2002. Mathematical Institute of the SAS, Stefanikova 49, SK-81473 Bratislava, Slovak Republic. **f** (+4217) 5249-7316 **e** probastat@savba.sk

10-16: Oberwolfach, Germany. Stochastic Geometry, Spatial Statistics and Statistical Physics: Math Forschungsinstitut Oberwolfach, Lorenzenhof, D-77709 Oberwolfach-Walke **e** kreck@topologie.mathematik.uni-mainzde **f** (49-7834) 97938. Organizers: Adrian J. Baddeley, Nedlands Dietrich Stoyan, Freiberg Wolfgang Weil, Karlsruhe

12-15: Deakin University, Geelong, Australia. First International ICSC-NAISO Congress on Autonomous Intelligent Systems. **e** secretariat: icais02@itstransnational.com**w** www.icsc-naiso.org/conferences/icais2002/index.html

March

4-8: Havana, Cuba. 5th International Conference on Operations Research. Prof Dr J Guddat, Institut fur Mathematik, Humboldt Universitat-Berlin, Unter den Linden 6, D-10099, Berlin, Germany **f** (49-30) 2834463 **e** guddat@mathematik.hu-berlin.de

15-21: Arlington, Virginia. IMS/ENAR Meeting (No. 275). Jiayang Sun, Department of Statistics, Case Western Reserve University, Cleveland, OH **e** jiayang@ sun.cwru.edu **t** 216-368-0630 **f** 216-368-0252 **w** sun.cwru.edu/ims

April

6: Storrs, Connecticut. University of Connecticut, Department of Statistics: A Day of Celebration and Dedication. Tracey Burke, Department of Statistics U-4120, 215 Glenbrook Road, University of Connecticut, Storrs 06269-4120 **t** (860) 486-3413, **e** statadm2@uconnvm.uconn.edu

11-13: Arlington, Virginia. Second SIAM International Conference on Data Mining. **w** www.siam.org/meetings/sdm02

17-20: **Montreal, Canada. Interface '02: 34th Symposium on the Interface of Computing Science and Statistics. w** www.galaxy.gmu.edu/interface/2002.html

18-20: Gaithersburg, Maryland. Design for Generalized Linear Models (GLMs). Ivelisse Avilés **e** aviles@nist.gov, or André Khuri, Department of Statistics, 103 Griffin-Floyd Hall, PO Box 118545, University of Florida, Gainesville, FL **t** 32611-8545 **e** ufakhuri@stat.ufl.edu **w** www.stat.ufl.edu

28-May 3: Ascona, Switzerland. Workshop on Nonparametric Smoothing in Complex Statistical Models. **w** www.unizh.ch/biostat/Smoothing2002/

May

1-4: Berlin, Germany. NL 2002: Networked Learning in a Global Environment: Challenges and Solutions for Virtual Education. Prof Dr Hermann Maurer, Chief Scientist of KNOW, Head of IICM and HMS, Graz University of Technology, Austria **e** hmaurer@iicm.edu

9-11: **Berkeley, California. Statistical Challenges for Meta-Analysis of Medical and Health-Policy Data. w** zeta.msri.org/calendar/workshops/WorkshopInfo/198/show_workshop

13-17: Louvain-la-Neuve, Belgium. 34th Journées de Statistique. Institute of Statistics, Université Catholique de Louvain, 20 Voie du Roman Pays, B-1348 Louvain-la-Neuve, Belgium **t** +32 10 47 43 54 **f** +32 1 47 30 32 **w** www.stat.ucl.ac.be/jsbl2002

16-18: Pensacola, Florida. Imprecise and Indeterminate Probabilities in Artificial Intelligence - FLAIRS 2002. Conference **w** www.flairs.com; Imprecise and indeterminate probabilities special track **w** www.coginst.uwf.edu/users/cmteng/flairs_iip.html

20-22: Ann Arbor, Michigan. Spring Research Conference on Statistics in Industry and Technology. Derek Bingham, Department of Statistics, University of Michigan, Ann Arbor MI 48109-1285 **e** dbingham@umich.edu

20-22: Toronto, Canada. SIAM Conference on Optimization. **w** www.siam.org/meetings/op02/

21-23: Louvain-la-Neuve, Belgium. Workshop on 'Statistical Modelling and Inference for Complex Data Structures'. Rainer von Sachs, Institute of Statistics, Catholic University of Louvain, Voie du Roman Pays 20, 1348 Louvain-la-Neuve, Belgium **e** rvs@stat.ucl.ac.be **w** www.stat.ucl.ac.be/workshop2002

June

2-4: Cleveland, Ohio. Workshop on Developments and Challenges in Mixture Models, Bump Hunting and Measurement Error Models. **w** sun.cwru.edu/mix

2-6: **Tenerife, Canary Islands, Spain. 7th Valencia International Meeting on Bayesian Statistics. Prof Dr José M Bernardo, Universidad de Valencia, Dept Estadistica, Fac Matematicas, 46100-Burjassot, Valencia, Spain** **t** +34.96.364.3560 (direct) or +34.96.386.4362 (office) **f** +34.96.364.3560 (direct) or +34.96.386.4735 (office) **e** valencia7@uv.es **w** www.uv.es/valencia7

5-7: Athens, Greece. Fifth International Conference on Lattice Path Combinatorics and Discrete Distributions. Prof Ch A Charalambides, Dept of Mathematics, University of Athens, Panepistemiopolis, GR-15784 Athens, Greece, **e** ccharal@math.uoa.gr

5-9: Honolulu, Hawaii. Hawaii International Conference on Statistics. 2440 Campus Road #517, Honolulu HI, 96822, USA **t** (808) 223-1748 **f** (808) 947-2420 **e** stats@hawaii.edu

9-13: **Stockholm, Sweden. NORDSTAT 2002: 19th Nordic Conference on Mathematical Statistics** **w** www.math.kth.se/nordstat

12-15: Crete, Greece. Bachelier Finance Society: 2nd World Congress. Thaleia Zariphopoulou, Chair of the Scientific Committee **e** zariphop@math.utexas.edu

17-21: Barcelona Conference on Stochastic Inequalities and their Applications. Campus of the Universitat Autònoma de Barcelona. Centre de Recerca Matemática **w** www.crm.es/stochineq

18-22: Genoa, Itally. 2002 Conference of The International Environmetrics Society -TIES. Dipartimento di Scienze Statistiche "P. Fortunati", Via delle Belle Arti 41, 40126 Bologna, Italy. Daniela Cocchi **e** cocchi@stat.unibo.it **t** +39 051 2098234 **f** +39 051 232153

18-25: Centro Majorana, Erice, Italy. Conference/School on 'Stochastic Methods in Decision and Game Theory, with Applications'. Marco Scarsini **e** scarsini@sci.unich.it **w** www.sci.unich.it/~scarsini/research/meetingErice.html

23-26: Los Angeles, California. IMS/WNAR Regional meeting, including workshop on molecular phylogeny on June 23 & Young Researchers' Luncheon **w** www.ph.ucla.edu/biostat/wnarims/welframe.ims

23-26: Washington, DC. The International Conference on Dependable Systems and Networks. Jaynarayan H Lala, **e** jlala@darpa.mil

23-29: Vilnius, Lithuania. The 8th International Vilnius Conference on Probability Theory and Mathematical Statistics. A Plikusas, Institute of Mathematics and Informatics Akademijos 4, 2600 Vilnius, Lithuania. **t** +370-2-729209 **f** +370-2-729209 **e** conf@ktl.mii.lt

24-27: Cavtat/Dubrovnik, Croatia. 24th International Conference, Information Technology Interfaces ITI 2002- Collaboration and Interaction in Knowledge-Based Environments. Conference Secretariat - ITI 2002 SRCE - University Computing Centre, University of Zagreb, J Marohnica bb, HR-10000 Zagreb, Croatia **t** +385 1 616 55 99 or +385 1 616 55 97 **f** +385 1 616 55 91 **e** iti@srce.hr **w** iti.srce.hr

24-28: Sandbjerg Slot, Denmark. Third International Conference on High Dimensional Probability. J Hoffmann-Jørgensen, Institute of Mathematical Sciences, University of Aarhus, Ny Munkegade, DK-800 Aarhus, Denmark **t** +45 8942 3438 **f** +45 8613 1769 **e** hoff@imf.au.dk

July

1-5: Melbourne, Australia. 28th Conference on Stochastic Processes and their Applications, under the auspices of the Bernoulli Society for Mathematical Statistics and Probability. Department of Mathematics and Statistics, University of Melbourne **e** spa@ms.unimelb.edu.au **w** www.spa28.ms.unimelb.edu.au

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International Calendar of Statistical Events

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July 2002 continued

7-10: Academia Sinica, Taiwan, R.O.C. The 2002 Taipei International Statistical Symposium and Bernoulli Society EAPR Conference. **w** www.stat.sinica.edu.tw/2002symp

7-11: Canberra, Australia. 16th Australian Statistical Conference. **w** www.statsoc.org.au/asc16.html **e** asc16@con-sol.com

7-12: Durban, South Africa. International Conference on Teaching Statistics ICOTS-6, International Convention Centre in Durban. IPC Chair: Maria-Gabriella Ottaviani (Italy) **e** mariagabriella.ottaviani@uniroma1.it **t** +39-6-49910561 **f** +39-6-4959241 **w** www.beeri.org.il/icots6/ ;

15-19: Crete, Greece. Bernoulli/IMS/Nonparametrics Section of ASA. Current Advances and Trends in Nonparametric Statistics. **w** www.stat.psu.edu/~npconf/

July 28-August 1: Banff, Canada. IMS Annual Meeting.

July 31 - August 2: Banff, Canada. The Fourth International Symposium on Probability and its Applications. **w** www.math.wisc.edu/~annprob/banff/banff.htm

August

4-7 Bethesda, Maryland. Third International Conference on Multiple Comparison Procedures (MCP2002). Ajit Tamhane **e** ajit@iems.northwestern.edu or Peter Westfall **e** westfall@ba.ttu.edu **w** www.ba.ttu.edu/isqs/westfall/mcp2002.htm

11-15: New York, NY. Joint Statistical Meetings (ASA/IMS/ENAR/WNAR) **w** www.amstat.org/meetings/jsm/2002/

15-17 [note date change]: **Singapore. Symposium on Stochastics and Applications (SSA). The Organizing Committee, SSA 2002, c/o Department of Mathematics, National University of Singapore, 2 Science Drive 2, Singapore 117543, Republic of Singapore f 65-779 5452 e ssa@math.nus.edu.sg w www.math.nus.edu.sg/ssa**

17-23: Ammarnäs, Sweden. Baltic-Nordic Conference on Survey Sampling. **w** www.matstat.umu.se/banocoss **e** banocoss@matstat.umu.se

19-23: Prague, Czech Republic. 24th European Meeting of Statisticians, organized jointly with the 14th Prague Conference on Information Theory, Statistical Decision Functions and Random Processes. Martin Janzura, Institute of Information Theory and Automation, POB 18, 182 08 Praha 8, Czech Republic **t** 420-2-6605 2572 **f** 420-2-688 4903 **e** janzura@utia.cas.cz **w** siprint.utia.cas.cz/2494#94ems/

30-September 2: Venice, Italy. Fifth International Conference on Forensic Statistics, ICFS5. Julia Mortera **e** icfs5@eco.uniroma3.it **w** icfs5.eco.uniroma3.it

September

13-14: Ames, Iowa. Topics in Linear Algebra (and Its Applications in Statistics). Huaiqing Wu, Department of Statistics, Iowa State University, Ames, IA 50011; **t** (515) 294-8949 **f** (515)-294-4040 **e** isuhwu@iastate.edu **w** www.math.iastate.edu/lhogben/TLA/homepage.html

23-24: Rimini, Italy. The European Network for Business and Industrial Statistics (ENBIS). Fabrizio Ruggeri, CNR IAMI, Via A.M. Ampere 56, I-20131 Milano, Italy **w** www.iami.mi.cnr.it/~fabrizio **t** +39 0270643206 **f** +39 0270643212 **e** fabrizio@iami.mi.cnr.it

24-27: Malaga, Spain. Third International ICSC Symposium on Engineering of Intelligent Systems. ICSC-NAISO (Operating Division), PO Box 1091, 3360 BB Sliedrecht, The Netherlands **t** +31-184-496999 **f** +31-184-421065 **e** eis2002@ITStransnational.com (Operating Division), planning@icsc.ab.ca (Planning Division)

October

21-23: Sydney, Australia. International Clinical Trials Symposium, hosted by the NHMRC Clinical Trials Centre, University of Sydney. **e** enquiry@ctc.usyd.edu.au **w** www.ctc.usyd.edu.au/4news/Symposium2002/ICTS_home.htm

31 - November 3: **Schloss Hoehenried, Bernried, near Munich, Germany. EWSM (Euroworkshop on Statistical Modelling): Model Building and Evaluation. Goeran Kauermann, Department of Statistics, University of Glasgow, Mathematics Building, University Gardens, Glasgow G12 8QW, UK e goeran@stats.gla.ac.uk w www.stat.uni-muenchen.de/euroworkshop/2002.html**

November

14-17: Charleston, South Carolina. Inter-

national Conference on Questionnaire Development, Evaluation and Testing. Jennifer Rothget, U.S. Census Bureau, Center for Survey Methods Research/ SRD/ FB #4, Rm. 3125, Washington, D.C. 20233 **t** (301) 457-4968 **e** jennifer.m.rothgeb@census.gov

December

17-21: Cochin, India. International Conference on Stochastic Modelling and IV International Workshop on Retrial Queues. Chairman: A Krishnamoorthy, Dept of Mathematics, Cochin University of Science and Technology, Cochin - 682022, India **e** ak@cusat.ac.in Co-Chairman: J R Artalejo, Dept of Statistics and OR, Complutense University, Madrid, Spain, **e** jesus_artalejo@mat.ucm.es

22-23: Trivandrum, Kerala, India. Statistics in the 21st Century. Dr N Krishnan Namboodiri, Ohio State University, Columbus, OH 43210, USA **t** 614-292-2308 **e** namboodiri.2@osu.edu or Dr P Sadasivan Nair, Populatin Centre, University of Kerala, Trivandrum, India **t** 418057 **e** psnair@vsnl.com

28-30: Chennai, Tamilnadu, India. Ranking and Selection, Multiple Comparisons, Reliability, and Their Applications. N Balakrishnan, McMaster University, **e** bala@mcmail.cis.mcmaster.ca N Kannan, University of Texas at San Antonio, **e** nkannan@utsa.edu H N Nagaraja, Ohio State University, **e** hnn@stat.ohio-state.edu

2003

June

9-12: Almaty, Kazakhstan. ASIM 2003, International Conference on Advances in Statistical Inferential Methods. N Balakrishnan, Department of Mathematics and Statistics, Mc Master University, Ontario, Canada **e** bala@mcmail.cis.mcmaster.ca

23-26: Dublin, Ireland. International Symposium on Forecasting, ISF2002. John Haslett, Department of Statistics, Trinity College, Dublin 2, Ireland **t** +353 1 6081114 **f** +353 1 6615046 **e** john.haslett@tcd.ie **w** www.isf2002.org

August

3-7: San Francisco, CA. Joint Statistical Meetings (ASA/IMS/ENAR/WNAR) INCLUDING IMS Annual Meeting

10-20: Berlin, Germany: International Statistical Institute, 54th Biennial Session [Includes meetings of the Bernoulli Society, The International Association for Statistical Computing, The International Association of Survey Statisticians, The International Association for Official Statistics and The International Association for Statistical Education]

Report of the IMS Treasurer for Fiscal Year 2001

INTRODUCTION

In fiscal year (FY) 2001 (July 1, 2000-June 30, 2001) the IMS experienced a slight increase in total number of individual members. From 1995 to 1999, the IMS membership steadily declined. In reaction to this decrease, the 1999 IMS Council approved an aggressive program to recruit new student members by providing student membership at no charge. The next step was to move these student members to regular members upon their graduation. In 2000, IMS Council approved an additional membership category "New Graduate" to help facilitate this change. New Graduates pay dues of $20 their first year out of school, $40 the second, the third they move to regular IMS members. These two programs have had an impact on our membership numbers by bringing in nearly 300 new members over the past 2 years. Our hope is that these members will see the benefits offered by the IMS and become long term members.

The journals continue to run smoothly, but with slight publication delays. All journals are publishing four to five months behind schedule. Currently, our focus is to get *Annals of Statistics* back on schedule, with great assistance from the editors, this journal should be back on time by the end of 2002. Next we will focus on the probability journals. There are several issues being addressed to decrease publication delays, including: increasing article backlogs, facilitating publication schedules and addressing delay issues as they occur. Along with our increase in membership, subscriptions to journals by members is slightly up. After many years of stability selection of journals by non-member subscribers decreased in 2001. We plan to focus on this issue over the next year.

The financial status of the Institute is currently strong and stable. Details of the events of the past year, membership and subscription data, sales data and a detailed analysis of the financial statement for FY 2001 are given below.

IMS Dues and Subscriptions Office

In May 2000, the IMS Council unanimously approved to outsource the IMS dues and subscriptions services of the IMS. The decision was made to contract with the Federation for American Societies in Experimental Biology (FASEB) located in Bethesda, Maryland, to provide these services. On July 1, 2000, FASEB began providing their services to our members and subscribers. After completing our first fiscal year with this arrangement, we have found our overall savings to be greater than initially projected. Overall, the arrangement has worked very well. We have found their staff to be open to change and willing to improve the processes. The FASEB staff understands our organization, our members and our publications well and they were able to get up to speed quickly. FASEB works with many societies (approximately 20) to provide similar services. However, the IMS has never felt like one of many, instead we have received individual service and have had our unique needs addressed. We have encountered one major problem during the year, involving the time lag when processing 2001 renewals. This is very important and has been our biggest priority. The FASEB staff was proactive and worked with us to address the issue. We don't expect to have the same problem with 2002 renewals.

Our arrangement with FASEB has also allowed us the opportunity to benefit from economies of scale that we have not had access to in the past. At a very low cost to the IMS, we were able to create on-line membership applications, renewal forms and book orders forms and link them to our web site. FASEB has found that about 90% of new members come to us via our web site. In addition, we were able to add low cost broadcast e-mail and begin connecting with our members via the e-Bulletin.

IMS Societal Office

Along with the decision to contract with FASEB, came the decision to close the IMS Business office in Hayward. This was not an easy decision to make, but one that was necessary for the IMS to move forward and provide timely, cost effective services to our members. After 25 years at in Hayward, the IMS office officially moved in September 2000. An Archives Committee, chaired by Bruce Trumbo, was put in place to assist in discerning which items should be kept long term. All archival items, as directed by the committee, were sent to the ISU Statistical Collections (where the IMS houses long term archives). Our inventory of back issues and books was sent to the appropriate distributors. Office equipment was sold, donated or forwarded to the Executive Director's office.

The non-dues and subscription

processing arm of the IMS Business Office was then folded into the Executive Director's office located in Cleveland, Ohio where it has been for more than two years. This arrangement has worked very well for the last year and we expect it to continue to remain in that manner.

IMS Publications and Web

Editors: Welcome to Jon Wellner and John Marden, Editors, *Annals of Statistics*; George Casella, Executive Editor, *Statistical Science*; Bernard Silverman, Editor, *IMS Bulletin*; and Paul Shaman, Managing Editor, Statistics. Special thanks go to Jim Berger, Hans Künsch, Dipak Dey and Barry Arnold who have completed their terms and have served the IMS with great dedication. Also thanks go to Joe Eaton, who stepped in as Executive Editor of *Statistical Science* after the untimely death of Richard Tweedie. Our sincerest condolences go out to the friends and family of Dr. Tweedie.

Project Euclid. In August 2001, the IMS Council agreed to make IMS journals available to our members online at no extra charge for 2002 via Cornell University's Project Euclid. We will roll this out to members around March 2002, please watch the IMS Bulletin and the E-Bulletin for more information.

JSTOR. In May 1998, the IMS signed an agreement with JSTOR to electronically archive all the IMS journals. Since that time, JSTOR has been provided with all past issues of the Annals of Mathematical Statistics, Annals of Statistics, Annals of Probability, Annals of Applied Probability and Statistical Science. There is a five-year rol ling window before issues are included in the archive. JSTOR now has all these journals available on their system through 1996.

IMS Lecture Notes - Monograph Series. During FY 2001, one new volume in the IMS Lecture Notes - Monograph Series was published. Volume 36, State of the Art in Probability and Statistics: Festschrift for Willem R van Zwet edited by Mathisca de Gunst, Chris Klaassen and Aad van der Vaart. Two more volumes have been published in FY 2002. Volume 37, Selected Proceedings of the Symposium on Inference for Stochastic Processes, edited by I. V. Basawa, C. C. Heyde and R. L. Taylor and Volume 38, Model Selection, edited by P. Lahiri.

NSF-CBMS Regional Conference Series. During FY 2001 a volume in the NSF-CBMS Regional Conference Series in Probability and Statistics was published. Volume 6, Statistical Inference from Genetic Data on Pedigrees, by Elizabeth A. Thompson.

IMS Membership Categories

At their August 2001 meeting, the IMS Council reinstated Life memberships effective for 2002 dues renewals. Based on the recommendation of actuaries, the rate for life members was set at twelve times the current member rate. Lifetime subscriptions at the same rate are also available to those who become Life members.

Also effective for 2002 renewals the Council has expanded the definition for countries eligible for reduced dues. The reduced dues countries be henceforth those defined by the World Bank as "developing countries". This added the following countries to our reduced dues list: Argentina, Saudi Arabia, South Korea.

IMS Meetings

FY2001 marked several new grant programs for IMS meetings. The first program initiated by President Iain Johnstone created "mini-meetings". IMS provides funds and publicity to help promote one or two day scientific meetings organized by IMS members. These meetings focus on topics of current interest. $2500 in grant funds were provided to Florida State University for their mini-meeting "Statistical Approaches to the Ocean Circulation Inverse Problems" held, November 13-14, 2001. Two additional mini-meetings are expected in 2002 at University of Florida and Carnegie Mellon University.

Travel grants for students and new researchers are also being provided by the IMS for several meetings. $3000 in grants were provided to the International Workshop in Applied Probability, January 14-17, 2002 in Caracas, Venezuela. $3,600 in grants were provided to the VIII Latin American Congress on Probability and Mathematical Statistics held in Havana, Cuba November 12-16, 2001. Also as part of the new Laha Award (see next section) the IMS will be providing restricted travel funds to the 2002 IMS Annual Meeting.

Contributions to the IMS

In FY 2001, the IMS received a considerable donation from the estate of Professor Radha Govind Laha, along time member of the IMS. Professor Laha provided no restrictions on the funds in his will. The IMS Council voted unanimously to use these fund to award travel grants to students and new graduates. The first Laha Travel Awards will be presented in 2002 for travel to the IMS Annual Meeting in Banff.

Also in FY 2001, friends of Professor Lucien Le Cam set up an endowment in his honor. The endowment institutes a permanent Le Cam lecture

to be delivered every three years at the IMS Annual Meeting. The first Le Cam lecture will take place at the IMS Annual Meeting in San Francisco during the Joint Statistical Meetings.

Membership Data

Total membership in the Institute as of December 31, 2001 was up 1.46% from December 31, 2000. Table 1 presents the distribution of memberships by category for the last several years. In August 2001, the IMS Council re-instituted Life memberships and subscriptions at 12 times the current rates. We should begin seeing an increase in this membership category beginning next year.

Breakdown of Individual Members:

Among the general members for 2001, a total of 58 are Gift members (53 last year), 41 are joint members (38 last year), 231 are retired (223 last year) and 150 are reduced rates (146 last year) and the remaining 2,571 are regular members (2,317 last year). We rely on members and academic departments to assist us in getting out the word that student membership is free with one reduced rate journal purchase. Also to emphasize the importance of maintaining a strong statistical presence in the world through our organization.

Geographic Distribution of Members.

Approximately two thirds of our members are in the USA and Canada. This geographic distribution has not appreciably changed since 1985. [Table 1 on the next page shows the distribution of members by category]

Selection of Journals by Members.

Along with a increase in membership, subscription to journals by members also increased. [Table 2 on the next page presents the journal selections of members for FY 2001 and the preceding three years.]

Annals of Statistics is received by about 58% of the membership, while about 28% receive *Annals of Probability*, about 26% receive the *Annals of Applied Probability*, and about 79% receive *Statistical Science*.

Revenue from all Institute member dues and journal subscriptions amounted to $356,487 for the fiscal year ending June 30, 2001, up from $306,058 in FY 2000. This is attributed to the general increase in individual members.

Non-member Subscription Data

Table 3 presents comparative subscription data for non-members to each of our scientific journals for 2001 and the previous three years. All journals experienced a decrease in subscriptions in 2001. This, of course, is of great concern to us, since a large percentage of our annual income is gleaned from non-member subscribers. IMS journal prices have remained well below industry standards, but the IMS may be feeling the tightening of budgets by university libraries and the expansion into electronic journals.

Revenue from all non-member subscriptions was $622, 055 for the fiscal year ending June 30, 2001, down from $637,241 for the FY 2000. Approximately 67% of the non-member subscribers to IMS journals are in North America, with the remaining subscribers distributed throughout the world.

TABLE 1

Distribution of Memberships by Category
Calendar Year Data (Jan-Dec)

	1998	1999	2000	2001	% change
Individual	3097	2898	2777	2820	1.55%
Life	11	11	10	8	-20.00%
New Graduate	n/a	n/a	n/a	93	n/a
Student	182	228	478	395	-17.36%
Organizational	98	100	96	94	-2.08%
Total	3388	3237	3361	3410	1.46%

TABLE 2

Distribution of Journal Selections by Members
Calendar Year Data (Jan-Dec)

	1998	1999	2000	2001	% change
AAP	1048	911	911	902	-0.99%
AOP	1139	1007	918	952	3.70%
AOS	2107	1950	1904	1992	4.62%
STS	2691	2672	2661	2707	1.73%
Total Subs	6985	6540	6394	6553	2.49%

TABLE 3

Distribution of Journal Selections by Non-Member Subscribers
Calendar Year Data (Jan-Dec)

	1998	1999	2000	2001	% change
AAP	777	799	779	680	-12.71%
AOP	1148	1127	1121	983	-12.31%
AOS	1512	1481	1454	1305	-10.25%
STS	1180	1156	1258	1068	-15.10%
Bull	249	284	320	259	-19.06%
Total Subscriptions	4866	4847	4932	4295	-12.92%

Sales Data

There was one new volume in the *NSF-CBMS Regional Conference Series in Probability and Statistics* in FY 2001. In FY 2001, total revenue from this Series was $9,002, up from $2,735 in FY 2000.

[Table 4 below shows summary data on sales from the NSF-CBMS Regional Conference Series.]

Sales on the new volume continue to be strong.

One new volume in the *Lecture Notes - Monograph Series* was published near the end of FY 2001.

[Table 5 also on the next page presents sales data for Volumes 1-36 of this Series.]

Total revenue from the Series decreased slightly to $21,975 in FY 2001, down from $27,000 in FY 2000. Due to the publication date, sales for volume 36 will begin in FY 2002.

TABLE 4

Sales from the NSF-CBMS Regional Conference Series
Fiscal Year Data (July 1-June 30)

Vol	Short Title	Year Published	to 1997	1998	1999	2000	2001	TOTAL
1	Group Invariance	1989	824	7	14	9	11	1,689
2	Empirical Pro	1990	948	30	25	30	34	2,015
3	Stochastic Curve	1991	572	23	13	12	8	1,200
4	Higher Order	1994	348	29	25	10	17	777
5	Mixture Models	1995	513	72	59	69	108	1,334
6	Genetic Data	2000	0	0	0	0	306	306
Total			3,205	161	136	130	484	6,707

TABLE 5
LNMS Sales
Fiscal Year Data (July 1-June 30)

Vol	Short Title	Date Publish	to 1997	1998	1999	2000	2001	Total Sales
1	Essays	Oct-81	939	12	6	10	4	971
2	Survival	Mar-83	1,229	13	8	10	7	1,267
3	Empirical	Nov-83	1,018	20	11	10	11	1,070
4	Zonal	May-84	673	11	3	8	11	706
5	Inequalities	Aug-84	1,226	16	12	13	11	1,278
6	Likelihood	Nov-84	1,971	37	39	57	37	2,141
7	Approximate	Apr-87	1,062	25	17	15	17	1,136
8	Adaptive	Apr-87	544	7	4	5	5	565
9	Fundamentals	Apr-87	1,287	36	23	28	23	1,397
10	Differential	Jan-88	1,311	37	38	48	23	1,457
11	Group	Oct-88	1,788	48	55	50	45	1,986
12	Continuity	Oct-90	690	25	19	12	11	757
13	Small	Oct-90	953	29	27	22	17	1,048
14	Invariant	Feb-91	248	15	9	8	9	289
15	Analytic	Feb-91	401	8	10	10	7	436
16	Topics	May-91	392	12	11	12	7	434
17	Current	May-92	352	13	12	10	7	394
18	Selected	May-92	287	9	6	4	5	311
19	Stochastic	May-92	356	14	10	10	9	399
20	Spatial	May-92	465	17	5	14	5	506
21	Weighted	Oct-92	387	21	11	9	8	436
22	Stochastic	Mar-93	268	14	9	14	8	313
23	Change-point	Dec-94	259	23	17	12	16	327
24	Multivariate	Nov-94	248	23	15	15	13	314
25	Adaptive Des	Mar-95	173	21	18	13	13	238
26	Stoch Diff Equ	May-96	177	52	19	21	14	283
27	Anal Cens Data	May-96	177	54	19	15	12	277
28	Fixed Marginals	May-97	43	147	43	17	20	270
29	Bayes Robust	Feb-97	61	165	42	17	17	302
30	Game Theory	Nov-96	74	170	44	17	12	317
31	L1 Statistical	Aug-97	0	177	45	21	10	253
32	Selected Pro	Jan-98	0	95	129	25	16	265
33	Mol Biology	Oct-99	0	0	0	192	117	309
34	Exp Design	Dec-98	0	0	35	125	51	211
35	Ferguson	Jun-00	0	0	0	0	79	79
36	State of the Art	May-01	0	0	0	0	2	2
TOTAL			19,059	1,366	771	869	679	22,744

FINANCIAL OVERVIEW

This is a detailed analysis of the Financial Statement for FY 2001, which is presented in this issue of the IMS Bulletin, following this Treasurer's Report. Comparisons are always with FY 2000. The overall picture of the financial status of the Institute: strong and stable. Per the auditor's report, in FY 2001 we experienced an increase in unrestricted net assets of $232,488. This amount has been invested for the long-term stability of the IMS. The Statement of Activities shows an increase in total revenue and a slight increase in total expenses compared with FY 2000. Total revenues are higher than expenses showing a net gain.

Revenue

Membership dues and revenue from subscriptions were adjusted, as in the past to prorate calendar-year revenues to fit with the Institute's fiscal year reporting. Revenues from membership dues and subscriptions are up from FY 2000; this is due to our increase in individual paying members during FY 2001. Revenues from non-member subscribers are slightly down due to a drop in institutional subscribers. The contribution listed in FY 2001 is the donation made by

the estate of Dr. Laha. Sales of back issues are up from FY 2000 due to the warehouse sale when we closed the Hayward office. Page charges are up. Due to the voluntary nature of the contributions, the levels received tend to fluctuate considerably. Revenue from sales of *Lecture-Notes Monograph Series* was down due to only one new volume published late in the fiscal year. Meeting income decreased as we handled no funds from meetings this fiscal year. Advertising revenues were down slightly, we hope to increase this line item as our web advertisements allow for a more timely publication for employers. Net earnings of joint publication ventures shows a deficit once again in FY 2001. This is because both publications (*Current Index to Statistics* and the *Journal of Computational and Graphical Statistics*) have experienced decreases in revenue and the IMS's stake is therefore decreased. This figure is not a reflection on the disbursements to sponsoring societies made by each management committee. The unrealized loss on investments is merely a line item, which shows prepaid interest and is not an *actual* loss on investments. That amount should be totaled with the Investment Income line item to get a complete understanding of our gain on investments in FY 2001.

The overall picture of the financial status of the IMS is strong and stable

Expenses

Beginning in FY 1999, the IMS made a distinction between Program and General Administrative expenses in its audited reports. This is appropriate reporting for a non-profit organization and will give members a better idea of how much is being spent on actual programming (journals, meetings, etc) versus what is spent purely on administration of the Institute. I am happy to report that 93.5% of your dues dollars goes directly into the program functions of the IMS (up from 91% in FY 2000) and a direct result of our closing the office.

Discussion of Note G. Here you will see the allocation for expenses for Program and General Administrative. There is a decrease in production expenses due to a decrease in the number of offprint orders, an increased usage of IMS macros, and a decreased number of pages in the *Annals of Statistics*. Overall Editorial expenses were stable (see Discussion of Note H for more information). For the first time the line item for Management Fee has been added. This shows the expenses paid to FASEB for their dues, subscriptions and web services. Salaries are down in FY 2001 due to decrease in staff after closing the Hayward office. Mailing and shipping at the press is up from FY 2000, due to allocation of expenses for back issue orders which were previously expensed as part of shipping from the office. This is due to a change to having the printers distribute 90% of the back issue orders. Meeting expenses, are down because IMS held two Annual Meetings during FY 2000, an artifact of the calendar year only. Rent and utilities are down due to the closing of the Hayward office, the IMS was able to opt out of its lease early. Contributions to other societies are down, due to a council-approved $15,000 contribution to the National Institute of Statistical Science which occurred in FY 2000. Postage was up from FY 2000, due to the cost of shipping items as we closed the Hayward office. Computer equipment and software is down a considerable amount as we closed Hayward office. Professional fees were up slightly in FY 2001 as the need to perform an audit of the societal office in two locations; Cleveland and the dues and subscriptions office in Bethesda. Insurance fees have been fixed over the last couple of years and are paid quarterly. The seemingly fluctuating amount from year to year reflects the cut-off date of the invoices relative to the year-end statement. Supplies, maintenance and telephone are down from FY 2000 due to closing of the Hayward office. Office expense includes bank fees and other miscellaneous expenses. Membership drives and publicity is up as we work to promote membership via additional avenues.

Discussion of Note H. On the whole, production expenses for all journals have decreased due to increased use of macros and decreased total published volumes. The *Annals of Statistics* experienced a large decrease in expenses as fewer pages were published in FY 2001. The *Annals of Applied Probability* experienced an decrease after an increase in FY 2000, this is mostly due to allocation of expenses crossing fiscal years rather than an actual decrease in expenses. One LNMS and one CBMS volume were published in FY 2001. Editorial expenses are generally stable. The *Annals of Applied Probability* and the Web Editor are up, due to changes in editor. *Statistical Science* is up due to changing of the editor in FY 2000.

Recommendation

This year we recommended maintaining the same levels for dues and rates in 2002 as those in 2001. Journal rates for members remain the same next year, as they are this year. The 2001-2002 Council voted these recommendations at the Annual Meeting in August 2001 in Atlanta, Georgia, USA.

Julia Norton, Treasurer
December 2001

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Auditors' Report

The Council
Institute of Mathematical Statistics

We have audited the accompanying statements of financial position of the Institute of Mathematical Statistics, as of June 30, 2001 and 2000 and the related statements of activities and cash flows for the years then ended. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in Note A, the Institute expenses equipment purchases in the year of acquisition. This method is not in accordance with accounting principles generally accepted in the United States of America.

In our opinion, except for the effects of expensing rather than capitalizing equipment purchases as discussed in the preceding paragraph, the financial statements referred to above present fairly, in all material respects, the financial position of the Institute of Mathematical Statistics, as of June 30, 2001 and 2000, and the changes in its net assets and cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Bregante + Company LLP

October 19, 2001

INSTITUTE OF MATHEMATICAL STATISTICS

STATEMENTS OF FINANCIAL POSITION

June 30, 2001 and 2000

	2001	2000
ASSETS		
Cash and cash equivalents	$ 147,547	$ 49,177
Investments, at market value	2,115,667	2,027,658
Accounts receivable	10,491	20,133
Interest receivable	38,979	41,928
Prepaid expenses	17,018	8,500
Investments in joint ventures	95,699	144,495
Restricted cash for endowment	21,305	-
Deposits	3,400	8,745
Total assets	$ 2,450,106	$ 2,300,636
LIABILITIES AND NET ASSETS		
Liabilities:		
Accounts payable and accrued liabilities	$ 171,895	$ 219,358
Unearned membership and subscription revenue	444,381	479,936
Total liabilities	616,276	699,294
Net assets:		
Unrestricted:		
Operating	1,644,053	1,517,464
Board designated	168,472	83,878
Total unrestricted	1,812,525	1,601,342
Permanently restricted endowment	21,305	-
Total net assets	1,833,830	1,601,342
Total liabilities and net assets	$ 2,450,106	$ 2,300,636

INSTITUTE OF MATHEMATICAL STATISTICS
STATEMENTS OF ACTIVITIES

For the Years Ended June 30, 2001 and 2000

	2001	2000
Changes in unrestricted net assets:		
Revenue and support:		
Membership dues and journal subscriptions	$ 356,487	$ 306,058
Non-member subscriptions	622,055	637,241
Contributions	97,164	-
Sales of back issues	16,441	9,513
Page charges	33,558	12,856
Sales of Lecture Notes - Monograph Series	21,975	27,000
Sales of NSF-CBMS Series	9,002	2,735
Meetings	12,177	23,929
Advertising	16,447	18,216
Offprints, royalties and other	14,225	18,894
Net deficits of joint venture publications	(11,796)	(3,868)
Unrealized loss on investments	(12,600)	(6,800)
Investment income	129,573	110,249
Net assets released from restrictions by satisfaction of program restrictions	-	2,893
Total unrestricted revenue and support	1,304,708	1,158,916
Expenses:		
Program	1,026,079	988,731
General and administrative	67,446	101,391
Total expenses	1,093,525	1,090,122
Increase in unrestricted net assets	211,183	68,794
Changes in temporarily restricted net assets:		
Contributions		1,925
Net assets released from restrictions by satisfaction of program restrictions	-	(2,893)
Increase (decrease) in temporarily restricted net assets	-	(968)
Changes in permanently restricted endowment:		
Contributions	21,305	-
Increase in permanently restricted endowment	21,305	-
Increase in net assets	232,488	67,826
Net assets, beginning of year	1,601,342	1,533,516
Net assets, end of year	$ 1,833,830	$ 1,601,342

INSTITUTE OF MATHEMATICAL STATISTICS
STATEMENTS OF CASH FLOWS

For the Years Ended June 30, 2001 and 2000

	2001	2000
Cash flows from operating activities:		
Changes in net assets	$ 232,488	$ 67,826
Adjustments to reconcile changes in net assets to net cash provided by operating activities:		
(Increase) decrease in investments in joint ventures	11,796	(1,661)
Unrealized loss on investments	12,600	6,800
(Increase) decrease in assets:		
Accounts receivable	9,642	(11,079)
Interest receivable	2,949	(12,074)
Restricted cash for endowment	(21,305)	-
Prepaid expenses and deposits	(3,173)	(6,045)
Increase (decrease) in liabilities:		
Accounts payable and accrued liabilities	(47,463)	53,278
Unearned membership and subscription revenue	(35,555)	24,115
Net adjustments	(70,509)	53,334
Net cash provided by operating activities	161,979	121,160
Cash flows from investing activities:		
Cash received from joint ventures	37,000	65,000
Net change in investments	(100,609)	(373,058)
Net cash used by investing activities	(63,609)	(308,058)
Net increase (decrease) in cash	98,370	(186,898)
Cash and cash equivalents, beginning of year	49,177	236,075
Cash and cash equivalents, end of year	$ 147,547	$ 49,177

INSTITUTE OF MATHEMATICAL STATISTICS
NOTES TO FINANCIAL STATEMENTS

June 30, 2001 and 2000

NOTE A - Summary of significant accounting policies

Organization

The Institute of Mathematical Statistics (the Institute) is an international professional society devoted to the development and dissemination of the theory and applications of statistics and probability. Its activities include sponsorship of journals and other scientific publications, organization of scientific meetings and cooperation with other scientific organizations.
The scientific journals of the Institute are The Annals of Applied Probability, The Annals of Probability, The Annals of Statistics and Statistical Science. The IMS Bulletin is the news organ of the Institute. In addition, the Institute publishes The IMS Lecture Notes - Monograph Series. Jointly with other organizations, the Institute publishes the Journal of Computational and Graphical Statistics, the NSF-CBMS Regional Conference Series in Probability and Statistics, Current Index to Statistics, other Indexes and collected works of well-known statisticians and probabilists.
The Institute is an international organization of approximately 3,400 statisticians, probabilists, epidemiologists and econometricians from industry, academia and government.

Basis of accounting

The Institute maintains its accounting records and prepares its financial statements on the accrual basis. Accordingly, revenue and the related assets are recognized when earned rather than when received, and expenses are recorded when the obligation is incurred rather than when paid.

Financial statement presentation

The Institute reports information regarding its financial position and activities according to three classes of net assets: unrestricted, temporarily restricted and permanently restricted net assets, as required by the Statement of Financial Accounting Standards (SFAS) No. 117. The Institute did not have any temporarily restricted net assets as of June 30, 2001 and 2000.

Unrestricted net assets - designated

The Council of the Institute has designated that a portion of unrestricted net assets be used for specific purposes in future periods.

Permanently restricted endowment

Permanently restricted endowment consists of cash gifts restricted by donors to establish a fund honoring the memory of Professor Le Cam. The earnings from the endowment funds will be used to present a Le Cam Lecture every three years.
There were no earnings for the year ended June 30, 2001. Future earnings will be reported in temporary restricted net assets.

Cash equivalents

Cash equivalents consist of short-term, highly liquid investments, which are readily convertible into cash within thirty (30) days of purchase.

Equipment purchases and depreciation

It is the practice of the Institute to expense equipment purchases in the year of acquisition. Accordingly, the accompanying financial statements do not reflect the equipment owned by the Institute, nor is any provision for depreciation reflected in the statements. This policy does not conform with generally accepted accounting principles.

Investments in joint ventures

Investments in joint ventures are stated at cost plus the equity in the undistributed earnings of the joint ventures since the dates of acquisition.

Unearned membership and subscription revenue

The Institute receives payments in advance of the period in which they are earned. These amounts are shown as unearned membership and subscription revenue in the Statements of Financial Position.

Contributions

The Institute does not request or receive pledges. The Institute records contributions upon receipt.

Income taxes

The Institute is exempt from both federal and state income taxes under Section 501(c)(3) of the Internal Revenue Code. As such, no provision for income taxes is reflected in the financial statements.

Functional allocation of expenses

The costs of providing the program services of the Institute are summarized in the Statements of Activities and are shown in detail in Note G. Expenses that can be directly identified with a specific function are allocated directly to that function. Expenses that cannot be directly identified with a specific function are allocated between the program services and the general and administrative.

Production costs of publications

The Institute's policy is to expense the production costs of its publications as incurred rather than capitalize these costs as inventory. The Institute follows this policy as there is no discernible market for the publications after the initial distribution.

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Shipping and handling costs

Shipping and handling costs are recorded as incurred. The expenses were included in the functional expense in Note G.

NOTE B - Cash and cash equivalents and credit risk

The Institute maintains cash balances at three financial institutions. The balances, at times, may exceed federally insured limits. The Institute has not experienced any losses in these accounts and believes they are not exposed to any significant credit risk.

NOTE C - Investments

The Institute maintains accounts with Merrill Lynch. Investments include mutual funds carried at their fair market value and certificate of deposits at various institutions maturing at various dates. The investments are immediately convertible to cash with maturities ranging from one month to less than two years. Investments at June 30, 2001 and 2000 were as follows:

	2001	2000
Mutual funds	$ 177,000	$ 189,600
Certificates of deposit at various institutions	1,938,667	1,838,058
Total	$2,115,667	$2,027,658

NOTE D - Joint venture investments

The Institute and the American Statistical Association (ASA) are involved in a joint venture for the production and sale of the Current Index to Statistics (CIS). The Institute and ASA each hold a 50% interest in this joint venture.

The Institute, ASA and Interface Foundation of North America (IFNA) participate in a joint venture for periodic publication of the Journal of Computational and Graphic Statistics. The Institute's participation in profits and ownership of this venture is 40%.

The Institute's equity was $59,809 and $112,748 for Current Index to Statistics (the CIS venture) and $35,890 and $31,747 for Journal of Computational and Graphic Statistics (the IFNA venture) at June 30, 2001 and 2000, respectively.

The following is a summary of the financial position and results of operations of the joint ventures for the years ended June 30:

	Current Index To Statistics		Journal of Computational and Graphic Statistics	
	2001	2000	2001	2000
Current assets	$ 172,012	$ 267,288	$ 138,722	$ 131,680
Equipment (net)	-	-	-	-
Total assets	$ 172,012	$ 267,288	$ 138,722	$ 131,680
Current liabilities	$ 52,394	$ 41,793	$ 49,000	$ 52,313
Undistributed co-sponsors' equity	119,618	225,495	89,722	79,367
Total liabilities and co-sponsors' equity	$ 172,012	$ 267,288	$ 138,722	$ 131,680
Revenue	$ 142,023	$ 91,411	$ 80,476	$ 84,539
Net income (loss)	$ (31,877)	$ 4,757	$ 10,355	$ (5,572)

NOTE E - Lease of premises

The Institute had a noncancelable lease for its premises located in Hayward, California that was to expire on October 31, 2001. The landlord allowed the termination of the lease on September 15, 2000 when the Institute paid four extra months of lease payments. The Institute moved its management to Shaker Heights, Ohio and has contracted the processing of membership and subscription services to Federation of American Societies for Experimental Biology, a nonprofit organization, beginning July 1, 2000.

Rent expense including utilities was $17,221 and $32,323 for the years ended June 30, 2001 and 2000, respectively.

NOTE F - Retirement plan

The Institute participates in an employer matching 403(b) Retirement Annuity Plan. The Institute matches 200% of the contributions of eligible employees up to 5% of the employee's gross salary. Employees who have completed three years of service are eligible to participate. The Institute contributed $3,502 and $6,137 for the years ended June 30, 2001 and 2000, respectively.

NOTE G - Functional expenses

Program and general and administrative expenses for the year ended June 30, 2001 were as follows:

	Program	General and Administrative	Total	
Production expenses (see Note H)	$ 417,776	$ -	$ 417,776	
Editorial expenses (see Note H)	202,399	-	202,399	
Management fee	117,092	-	117,092	
Salaries, payroll taxes and employee benefits	63,427	27,183	90,610	
Mailing and shipping at press	89,990	-	89,990	
Meetings	29,904	-	29,904	
Rent and utilities		12,055	5,166	17,221
Contributions to other organizations	9,268	-	9,268	
Postage and shipping from office	37,012	15,863	52,875	
Computer equipment and software	2,997	1,285	4,282	
Professional fees	-	13,725	13,725	
Insurance	4,794	2,055	6,849	
Storage	10,283	-	10,283	
Printing	9,862	-	9,862	
Credit card fees and refunds	7,412	-	7,412	
Supplies	2,746	1,177	3,923	
Telephone	1,457	624	2,081	
Membership drives and publicity	6,736	-	6,736	
Office expense	648	274	922	
Repairs and maintenance	221	94	315	
	$ 1,026,079	$ 67,446	$ 1,093,525	

NOTE G - Functional expenses

Program and general and administrative expenses for the year ended June 30, 2001 were as follows:

		Program	General and Administrative	Total
Production expenses (see Note H)		$ 417,776	$ -	$ 417,776
Editorial expenses (see Note H)		202,399	-	202,399
Management fee		117,092	-	117,092
Salaries, payroll taxes and employee benefits		63,427	27,183	90,610
Mailing and shipping at press		89,990	-	89,990
Meetings		29,904	-	29,904
Rent and utilities		12,055	5,166	17,221
Contributions to other organizations		9,268	-	9,268
Postage and shipping from office		37,012	15,863	52,875
Computer equipment and software		2,997	1,285	4,282
Professional fees	-	13,725	13,725	
Insurance		4,794	2,055	6,849
Storage		10,283	-	10,283
Printing		9,862	-	9,862
Credit card fees and refunds	7,412	-	7,412	
Supplies		2,746	1,177	3,923
Telephone		1,457	624	2,081
Membership drives and publicity		6,736	-	6,736
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		$ 1,026,079	$ 67,446	$ 1,093,525

INSTITUTE OF MATHEMATICAL STATISTICS

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2001 and 2000

NOTE G - Functional expenses (continued)

Program and general and administrative expenses for the year ended June 30, 2000 were as follows:

	Program	General and Administrative	Total
Production expenses (see Note H)	$ 442,681	$ -	$ 442,681
Editorial expenses (see Note H)	191,318	-	191,318
Salaries, payroll taxes and employee benefits	134,607	64,926	199,533
Mailing and shipping at press	70,126	-	70,126
Meetings	39,003	-	39,003
Rent and utilities	26,666	5,657	32,323
Contributions to other organizations	22,507	-	22,507
Postage and shipping from office	17,925	3,802	21,727
Computer equipment and software	10,866	2,305	13,171
Professional fees	-	10,030	10,030
Insurance	6,205	3,416	9,621
Printing	4,310	4,311	8,621
Credit card fees and refunds	8,520	-	8,520
Supplies	6,608	1,402	8,010
Telephone	3,538	750	4,288
Membership drives and publicity	-	3,975	3,975
Office expense	2,380	505	2,885
Repairs and maintenance	1,471	312	1,783
	$ 988,731	$ 101,391	$ 1,090,122

INSTITUTE OF MATHEMATICAL STATISTICS

NOTES TO FINANCIAL STATEMENTS (Continued)

June 30, 2001 and 2000

NOTE H - Production and editorial expenses

Production and editorial expenses incurred were as follows:

	2001	2000
Production expenses:		
The Annals of Statistics	$ 115,810	$ 138,298
The Annals of Probability	108,649	116,758
The Annals of Applied Probability	64,399	92,430
Statistical Science	58,561	56,217
The Annals of CBMS	6,389	2,758
IMS Bulletin	33,678	30,257
Lecture Notes - Monograph Series	30,290	5,963
Total production expenses	$ 417,776	$ 442,681
Editorial expenses:		
The Annals of Statistics	$ 45,399	$ 49,741
The Annals of Probability	16,848	18,904
The Annals of Applied Probability	20,780	11,642
Statistical Science	18,316	13,868
IMS Bulletin	24,552	25,745
Managing and production editors	50,521	51,473
WWW editor	25,983	19,945
Total editorial expenses	$ 202,399	$ 191,318

The purpose of the Institute is to foster the development and dissemination of the theory and applications of statistics and probability

Organized September 12, 1935

In the next issue (March/ April 2002):

Profile of NISS, the National Institute of Statistical Science, plus news from members around the world, meeting announcements and job opportunities. Send in your articles, feedback, letters, adverts…

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(See panel on page 2 for Bulletin contact details and format instructions)

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Published bimonthly by the Institute of Mathematical Statistics, PO Box 22718, Beachwood, OH 44122, USA. Printed by Sheridan Press, 450 Fame Avenue, Hanover, PA 17331, USA. Periodicals postage paid at Cleveland, Ohio, and at additional mailing offices.